



SMITHSONIAN
HANDBOOKS



BIRDS

OF NORTH AMERICA

EASTERN REGION

Fred J. Alsop III



Ruby-Throated
Hummingbird



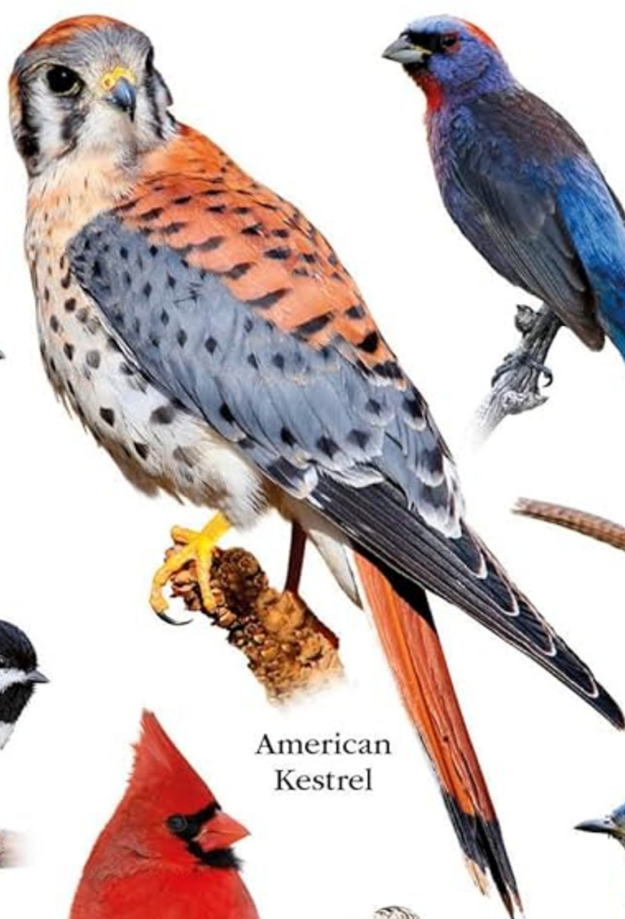
Blue Jay



Carolina
Chickadee



Eastern
Meadowlark



American
Kestrel



Northern
Cardinal



Varied Bunting



Ruddy
Turnstone



American
Goldfinch



Carolina
Wren



Eastern
Bluebird



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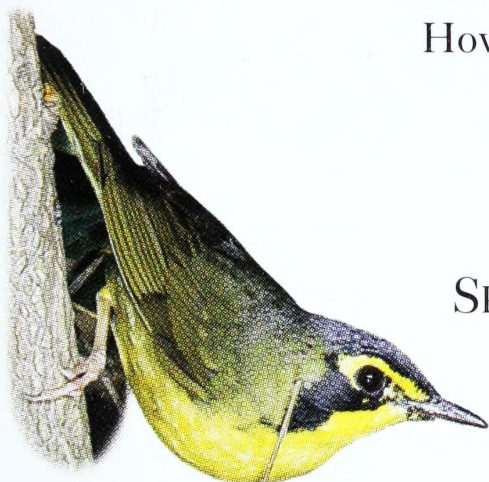
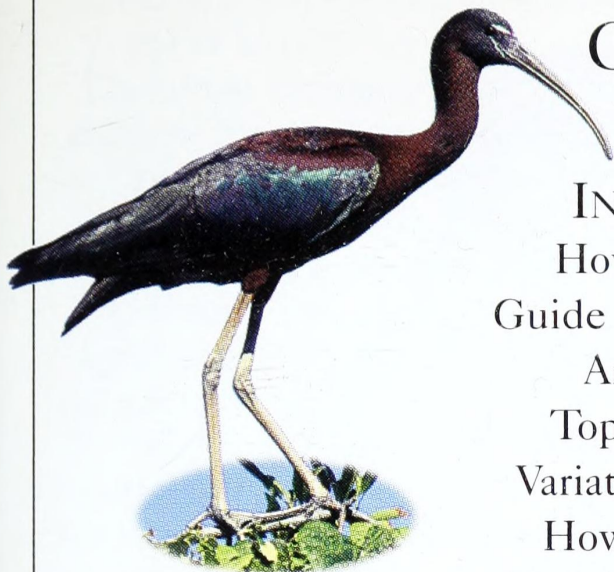
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INTRODUCTION

Birdwatching, or birding as it is now commonly called, is practiced by more than 60 million North Americans – making it the single largest hobby on the continent. North America is an exciting place to go birding because it holds billions of birds representing more than 900 species that are permanent or summer residents, visit regularly, or stray occasionally to the continent.

AVIAN DIVERSITY

Having attained the power of flight more than 150 million years ago, birds might be expected to be uniformly distributed in every corner of the Earth. But they are not. They are bound to the earth by the habitats to which they have adapted and limited by geographical barriers as well as the history of their lineage.

Different species are often associated with major plant communities, or biomes, that provide them with critical habitat requirements for part or all of their annual cycle. Polar regions of



The SNOWY OWL is a resident of the arctic tundra.

permanent ice and snow are home to Ivory Gulls; the arctic tundra to Snowy Owls, ptarmigans, jaegers, Gyrfalcons, and countless shorebirds in summer. The great block of northern coniferous forests provide seeds for crossbills, grosbeaks, finches, and nuthatches; in summer, insects for flycatchers, vireos, and warblers abound. Deciduous forests, southern pine forests, grasslands, and deserts all hold particular species of birds different from those in other biomes. Other species, such as herons, are adapted for freshwater ponds, lakes, rivers, and streams; still others for marshes and seashores as well as the open ocean.



The GREAT BLUE HERON has adapted to freshwater habitats.

BIRDWATCHING IN EASTERN NORTH AMERICA

The avian diversity of eastern North America is reflected in the more than 690 species of birds that have been recorded roughly east of the 100th meridian, the approximate north-south line used as a division in creating this book.

Within the eastern half of the continent lie the ancient mountains of the Appalachians, the Gulf and Atlantic Coasts, grasslands, southern swamps and pine forests, the massive eastern deciduous forests, the Great Lakes, boreal coniferous forests, tundra, and ice fields. Among the birds inhabiting this vast area is the continent's greatest diversity of wood warblers.

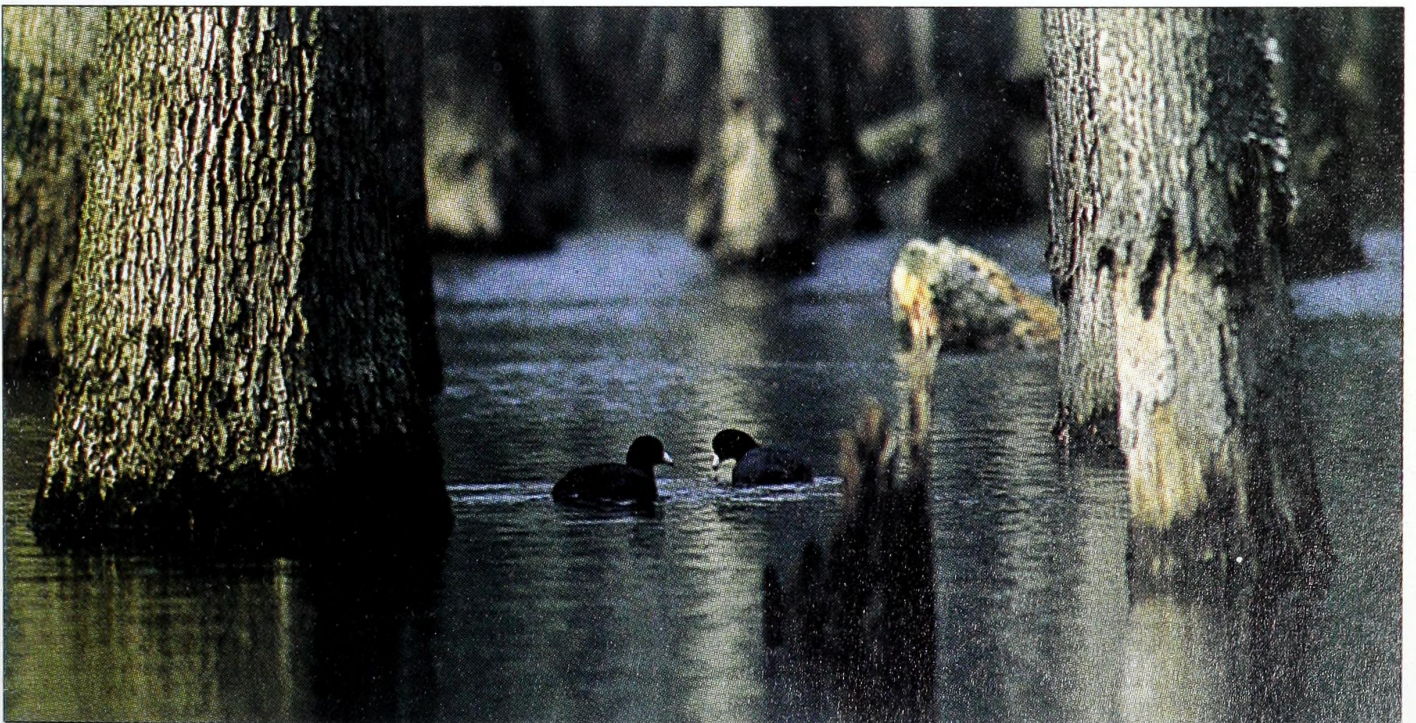
Many birdwatchers practice their hobby close to their own backyards. They learn to recognize the species they see most often and occasionally identify a "new" species for the yard, perhaps even photograph the birds they see. Many take their



The BLACK-THROATED BLUE WARBLER nests in deciduous and coniferous forests.

birding to the field. Some are so passionate that they travel North America identifying as many species as they can, often covering many miles on short notice to observe a newly discovered vagrant.

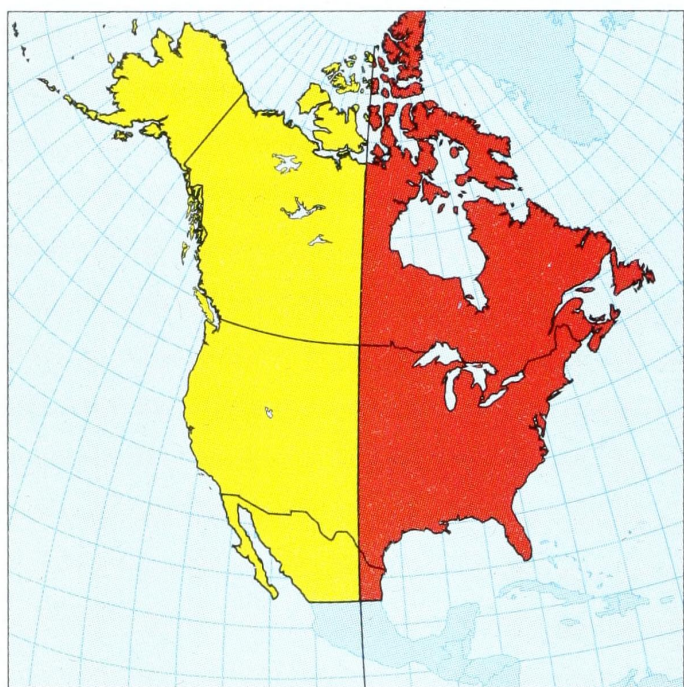
Not even the most ardent birder has seen all of the more than 920 species now accepted as having occurred in North America. But that is part of the fun and challenge of birding. It holds something for every level of interest, and the amateur birder stands as much chance as the professional of making a discovery that sheds important light on the field of ornithology.



AMERICAN COOTS thrive in hardwood swamps.

HOW THIS BOOK WORKS

Until now, no tool for identifying birds has also provided access to information on behavior, nesting, flight patterns, and similar birds in a compact and user-friendly format. Written for the novice as well as the experienced birder, this book showcases in individual page profiles each of the 689 species of birds documented for eastern North America. The species are in



taxonomic order and include all those known to breed east of the 100th meridian in North America north of Mexico, or adjacent islands and seas within 200 miles of the coast, and all species documented as regular visitors or vagrants by the American Ornithologists' Union (AOU) and the American Birding Association (ABA). Only those species listed on the current AOU *Check-list of North American Birds* (7th edition, 1998 and its 42nd Supplement, 2000) and the ABA 1998–99 *ABA Check-list Report, Birding* 31: 518–524 are included. Other species that have been seen but not yet accepted by one of these two bodies are not included. Also excluded are a host of introduced exotic species that are living in the wild, mostly in southern California and southern Florida, that are not yet recognized by either the AOU or the ABA as having viable breeding populations in North America.

FINDING YOUR BIRD

To find a bird, you can scan the pages of the book, or look up either scientific name or common name in the index. The species are in taxonomic order, beginning with the non-passerines such as grebes, loons, ducks, hawks, owls, doves, hummingbirds, and

woodpeckers. They are followed by the passerines, the perching or songbirds, which begin on page 431. Once you have found your bird's species profile, it will help you identify the bird as well as provide ready reference to its natural history.



LEAST GREBE (non-passerine)
Birds that do not perch and sing are in the first part of this book.



NASHVILLE WARBLER (passerine)
Birds that do perch and sing are in the second part of this book.

Scientific family name Scientific name of species Average length from tip of bill to tip of tail Average length between tips of open wings

120 • BIRDS OF NORTH AMERICA

Family ANATIDAE	Species <i>Aix sponsa</i>	Length 17–20 inches	Wingspan 28–30 inches
-----------------	---------------------------	---------------------	-----------------------

Common name of species

Description of song and call

If different from adult male, female is shown in color photograph

Characteristic behavior and feeding habits

If different from adult, subadult plumage is illustrated

Breeding habits and type of mate selection

Incubation and nestling information

Flight pattern indicated by icon; text provides further insight

Shape(s) and location(s) of nest indicated by icon

WOOD DUCK

Considered by many to be the most beautiful duck in North America, the colorful male of this species is unmistakable with its large iridescent crest and multicolored bill. In flight it appears big-headed with a short neck and a long squared tail. The bill angles downward.

• **SONG** Male makes soft up-slurred whistle. Female makes rising *hoo-eeek* and sharp *crreeek, crreeek*.

burgundy flanks

long squared dark tail

• **BEHAVIOR** Frequents wooded watercourses, ponds, and swamps. Dabbler that feeds primarily on vegetable material and insects but also eats snails, tadpoles, and salamanders. Walks easily on land and often forages there. Sometimes several females “dump” eggs in single nest box, which may hold 20–40 eggs. Often perches in trees.

• **BREEDING** Monogamous. Solitary nester.

• **NESTING** Incubation 25–37 days by female. First flight in 56–70 days. Tended by female. 1 brood per year in North; sometimes 2 in South.

• **POPULATION** Possible increase due to reduced hunting pressures and placement of nest boxes.

• **BIRDHOUSES** Will use nest boxes.

• **CONSERVATION** Habitat being lost to timbering and drainage.

Flight Pattern



Swift direct flight with rapid wing beats.

Nest Identification

Shape 

Location 

Lined with down • rarely nests in hollow fallen logs or barn lofts • built by female • 9–15 creamy white, dull white, or pale buff eggs; elliptical to subelliptical, 2 inches long.

Plumage Sexes differ	Habitat 	Migration Migratory	Weight 1.5 pounds
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DATE _____ TIME _____ LOCATION _____

Whether male and female have similar or different plumage

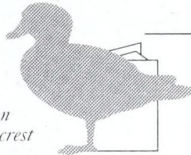
Habitat symbols

Whether bird migrates

Average weight

Species use of man-made nesting structures or attraction to feeders

Factors affecting species' continued existence as a viable population



Scale silhouette shows size of bird in relation to this book

Main image is a color photograph of male in breeding plumage

If different from main image, nonbreeding plumage is illustrated

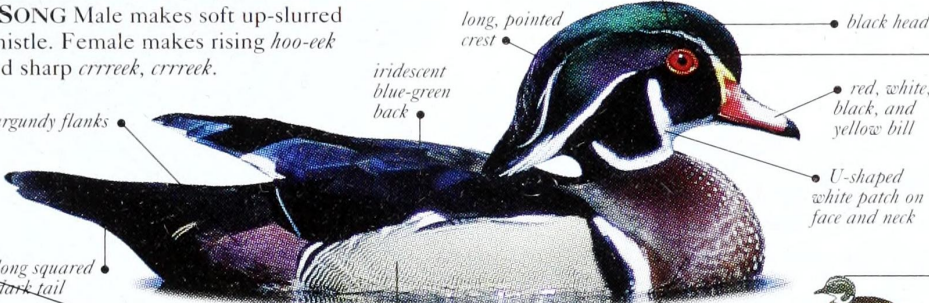
Key field marks are annotated on photographs

How to differentiate similar birds at a glance

General abundance, marked historical changes in ranges or numbers

Color-coded map shows bird's range at various times of year

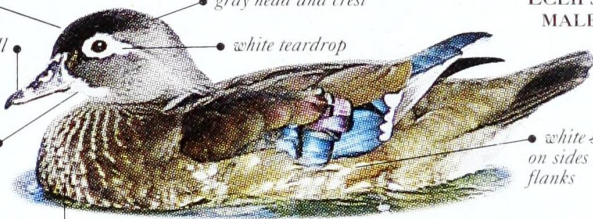
Nest description and egg identification



MALE



ECLIPSE MALE



FEMALE



JUVENILE

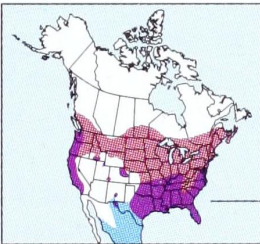
Similar Birds

Male unmistakable.

 BLUE-WINGED TEAL ♀

 GREEN-WINGED TEAL ♀

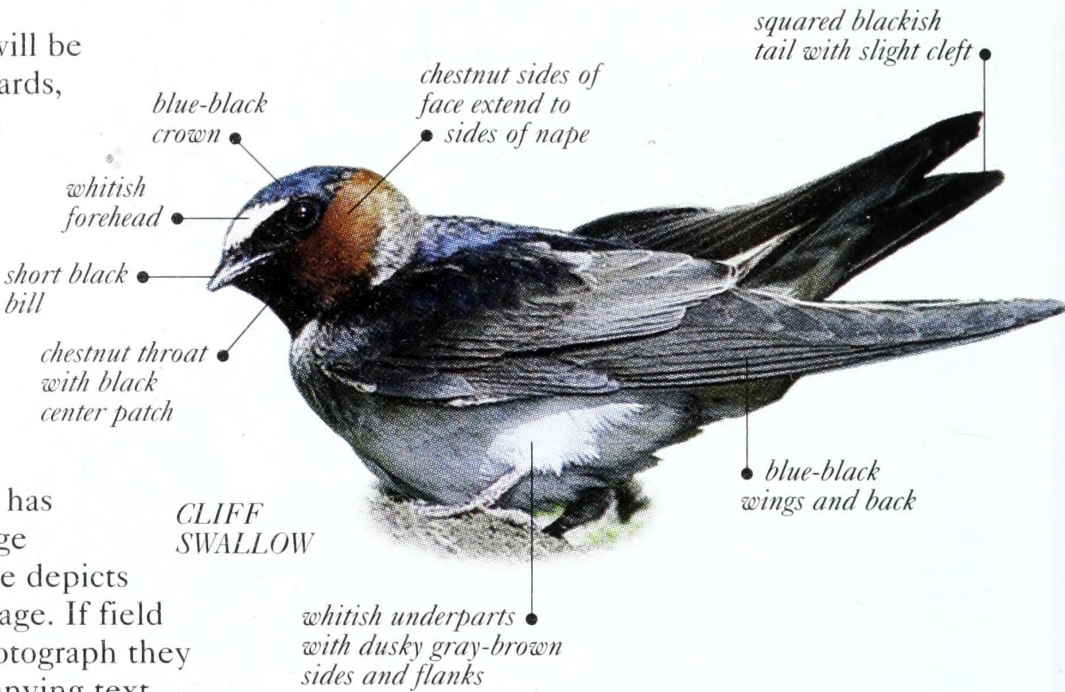
Females smaller; dark bill; lack crest; lack white tear-drop eye patch.



GUIDE TO VISUAL REFERENCES

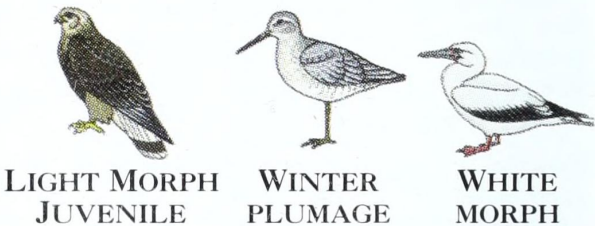
PHOTOGRAPHS

Because users of this guide will be viewing these birds in backyards, woodlands, and other natural environments, realistic photographs are used as visual reference. Some rare and seldom-photographed species are illustrated. Unless otherwise noted, the primary image shows the male bird in breeding plumage. If the adult female has significantly different plumage from the male a second image depicts the female in breeding plumage. If field marks are not visible in a photograph they are described in the accompanying text.



ILLUSTRATIONS

Many birds also have other plumages, including the winter plumage, which are depicted in illustrations. The plumage of the immature if different from both adults also is illustrated. Some species have different color morphs, which are also illustrated.



SIMILAR BIRDS

In many cases it can be difficult to distinguish between certain birds in the field. Thus species accounts feature a list of similar birds with accompanying text that identifies distinct features and behavior that clearly set them apart. Male and female symbols indicate the sex of the bird that could be mistaken for the species being profiled.

Similar Birds	
	CAVE SWALLOW Pale cinnamon-buff throat; cinnamon forehead; richer cinnamon-rust rump.

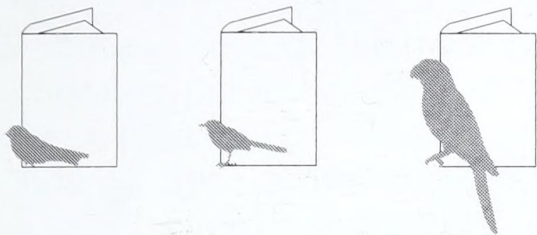
DISTRIBUTION MAP

Each species profile has a map showing where the bird is likely to be seen either all year long (permanent resident), in the breeding season (summer resident), or in the winter (winter resident). The maps depict only those parts of each species' range within North America and up to approximately 100 miles offshore north of central Mexico to the northern borders of Canada.



SCALE SILHOUETTES

These show the silhouette of the bird overlaid proportionally on a copy of this book.



Flight Pattern

Swift graceful flight alternating several deep, rapid wing beats with long elliptical glides with sharp sweeping upturns at the end. Soars on thermals and updrafts.

FLIGHT PATTERN

Each bird's flight pattern is shown in its species profile by an icon. For more information on flight patterns, see page 20.

NEST IDENTIFICATION

The Nest Identification box provides icons describing nest shape and location.

Nest Identification

Shape

Location

Pellets of clay or mud, with lining of grasses, down, and feathers • usually under eaves of buildings or under dams or bridges; sometimes on ridges of canyons; rarely on trunk of conifer tree under overhanging branch • built by both sexes • 3–6 white, cream, or pinkish eggs, marked with browns; oval to long oval, 0.8 x 0.5 inches.

Shape

Burrow Excavated Burrow Preformed Crevice Deep Cup Floating Man-made

None Open Cup Pendant Platform Saucer Scrape

Shallow Sphere Tree Cavity Primary Tree Cavity Secondary

Location

Bank Building Bridge Cave Chimney Cliff Conifer

Deciduous Floating Grass Gravel Roof Hollow Log Man-made Pebbles

Reed/Cattails Shrub Snag Bare Soil Stump

Habitat

HABITAT

At the bottom of each species account is a set of icons representing all the habitat types in the order in which the bird is found, from the most to the least likely.

- forest: coniferous, broadleaf, temperate, or tropical
- open forest; more space between the trees, tundra forest, semiopen areas
- forest edge, oak and riparian
- grassland with scattered trees (includes farmland, citrus groves, orchards)
- bushes, shrubs, thickets and undergrowth; tropical lowland
- areas of scrub vegetation, frequently with thorns
- open landscapes: grassland, tundra, savanna, coastal ponds/sloughs – salt, brackish or freshwater, coastal marshes, coastal wetlands, salt marshes, prairie potholes

- semidesert
- desert
- lakes, rivers and vicinity, sandspits, mudflats, ponds
- upland streams and vicinity
- open sea, low flat islands
- rocky or sandy seashore, bay islands, coastal islands, shallow coastal habitats, coastal bays, coastal mangroves, tidal flats, sand spits, mudflats
- freshwater marshes, swamps
- rocky places or cliffs (both on the coast and inland)
- mountains, wooded canyons

ANATOMY OF BIRDS

Birds are the most diverse terrestrial vertebrates with more than 9,800 extant species. Mammals are the only other homeothermic group with whom they share the planet. Yet, although mammal species number less than half that of birds, the mammals are much more varied in body shape and size. Mammals vary in form from primates to giraffes to armadillos, with specialists in running, hopping, flying, swimming, burrowing, digging, and climbing. Birds, however, all look like birds – with the same basic architecture, a body shape dictated by the demands of flight.

FEATHERS

Birds have three basic types of feathers: down, contour, and flight (wing and tail) feathers. Down feathers are next to the bird's skin for insulation. The contour is the most commonly recognized feather and the one that covers

most of the bird's body. Typical contour feathers consist of a central shaft or quill and the flattened portion or vane. Contour feathers that extend beyond the wings and tail are the flight feathers.



DOWN

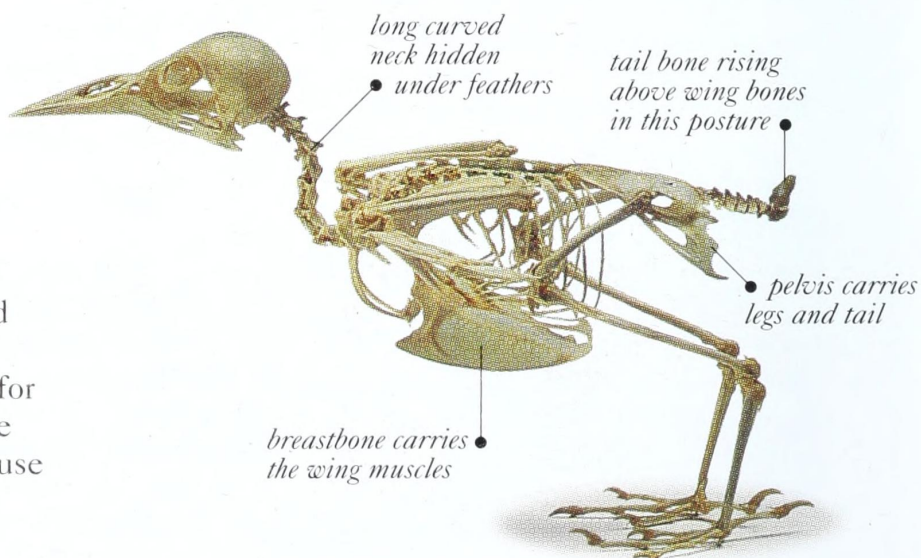


CONTOUR

FLIGHT
(WING AND TAIL)

BONES

In most species both the wings and the legs must be strong enough to transport the full weight of the bird, yet light enough to fly. Some bones have been fused and some bear internal struts. Ribs are overlapped for strength; others are hollowed, thinned, and reduced in numbers for lightness. In flying birds, and those flightless birds like penguins that use flipperlike forelimbs to “fly” underwater, the sternum, or breastbone, bears a thin knifelike keel to which the large flight muscles of the breast, the pectoral muscles, are attached.



The same characteristics of strength and elasticity found in a bird's feathers also can be found in the anatomy of its skeleton.

BILLS

Birds' bills are composed of a horny sheath overlying a bony core. The entire lightweight structure has evolved in countless ways to the specialized needs of its owner, from seed-

cracking to nectar probing and from fish-catching to fruit-picking. Birds also use their bills to build nests, preen, and court. Bills may change in size and/or color in breeding season.



The ROSEATE SPOONBILL uses its spoon-shaped bill to scoop food from water.



The NORTHERN CARDINAL uses its conical bill to crunch seeds.



The RUBY-THROATED HUMMINGBIRD uses its long needlelike bill to probe into flowers for nectar.



The RED CROSSBILL's bill features mandibles crossed at the tips that are ideal for digging the seeds out of pinecones.

LEGS AND FEET

The legs of birds are thin, strong, and springy, and in most species lack feathers on their distal parts where they are instead covered with scales. Muscles, which are concentrated on the portion of the leg nearest the body, control the extremities with a series of

tendons. Toes generally number four with three forward and one opposable toe pointed backward, but some North American birds have only three. Toes are covered by scales and have claws at their tips which in birds of prey are enlarged into strong talons.



The AMERICAN ROBIN has a typical bird's foot: four toes with three forward and one back.



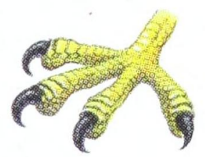
Some, like the HAIRY WOODPECKER, have two toes forward and two back.



The MALLARD has three webbed toes and one vestigial toe in back.



The DOUBLE-CRESTED CORMORANT has four webbed toes.



The BALD EAGLE has claws enlarged and elongated into talons.

WINGS AND TAILS

The shapes of wings and tails are an adaptation to where and how a bird flies. Look carefully at flight silhouettes: forest raptors (a) have rounded wings for living in dense vegetation; swallows (b) have narrow tapering wings. The tapering wings and narrow tail of a falcon



a



b



c

(c) contrast with the broad splayed wings and broad tail of an eagle (d), which allow an eagle to soar. Terns (e) have long elegant wings; albatross wings (f) are very long, with an extended inner section for flying over water like a sailplane.



d



e



f

TOPOGRAPHY OF A BIRD

As you consult the species profiles in this book you will encounter a number of ornithological terms that describe the “landscape,” or groups of feathers, of a bird’s body. Learning these terms will help you use your field guide and, when you look at living birds, prompt you to see more detail with each sighting.

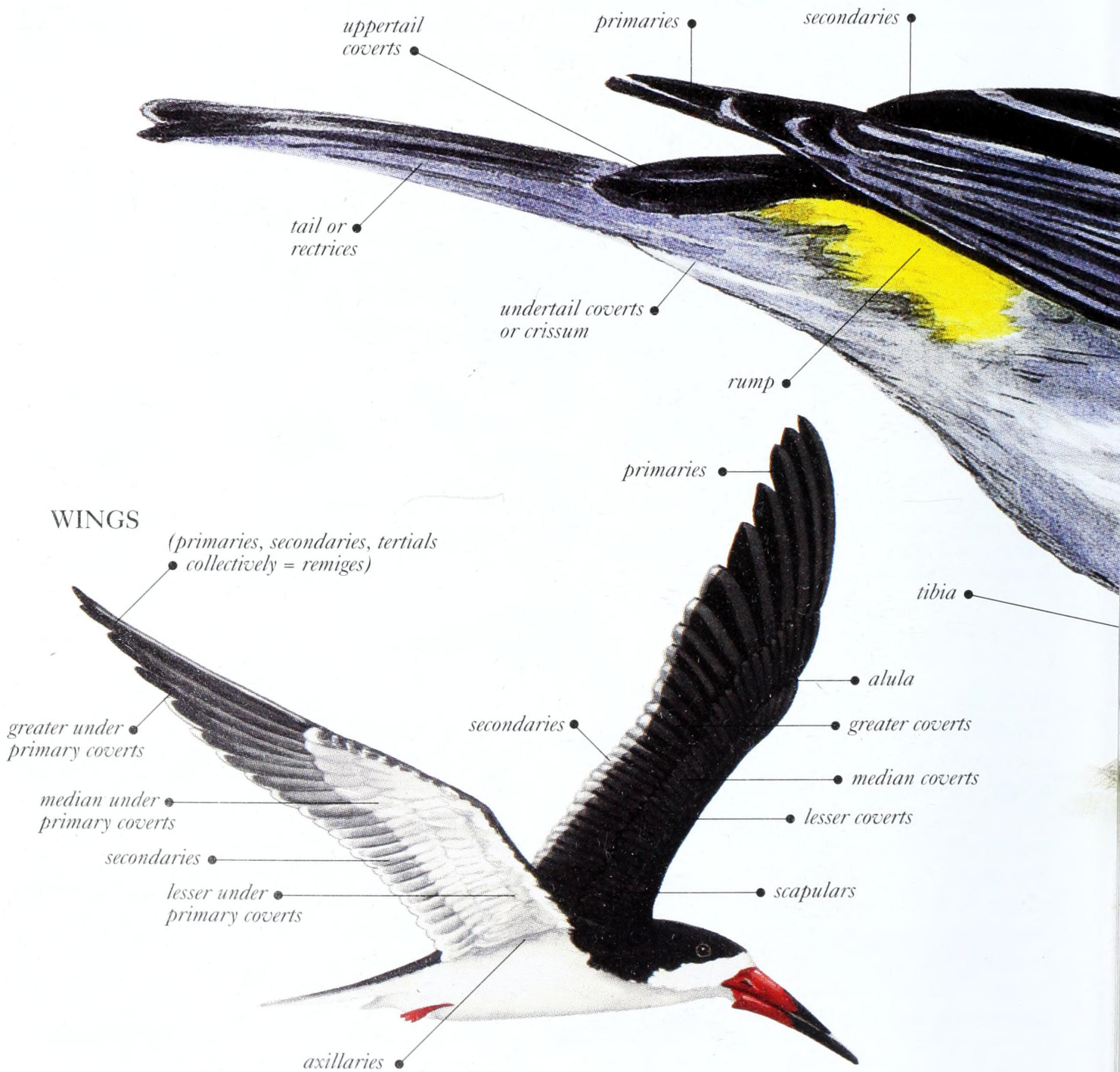
TIPS FOR THE FIELD

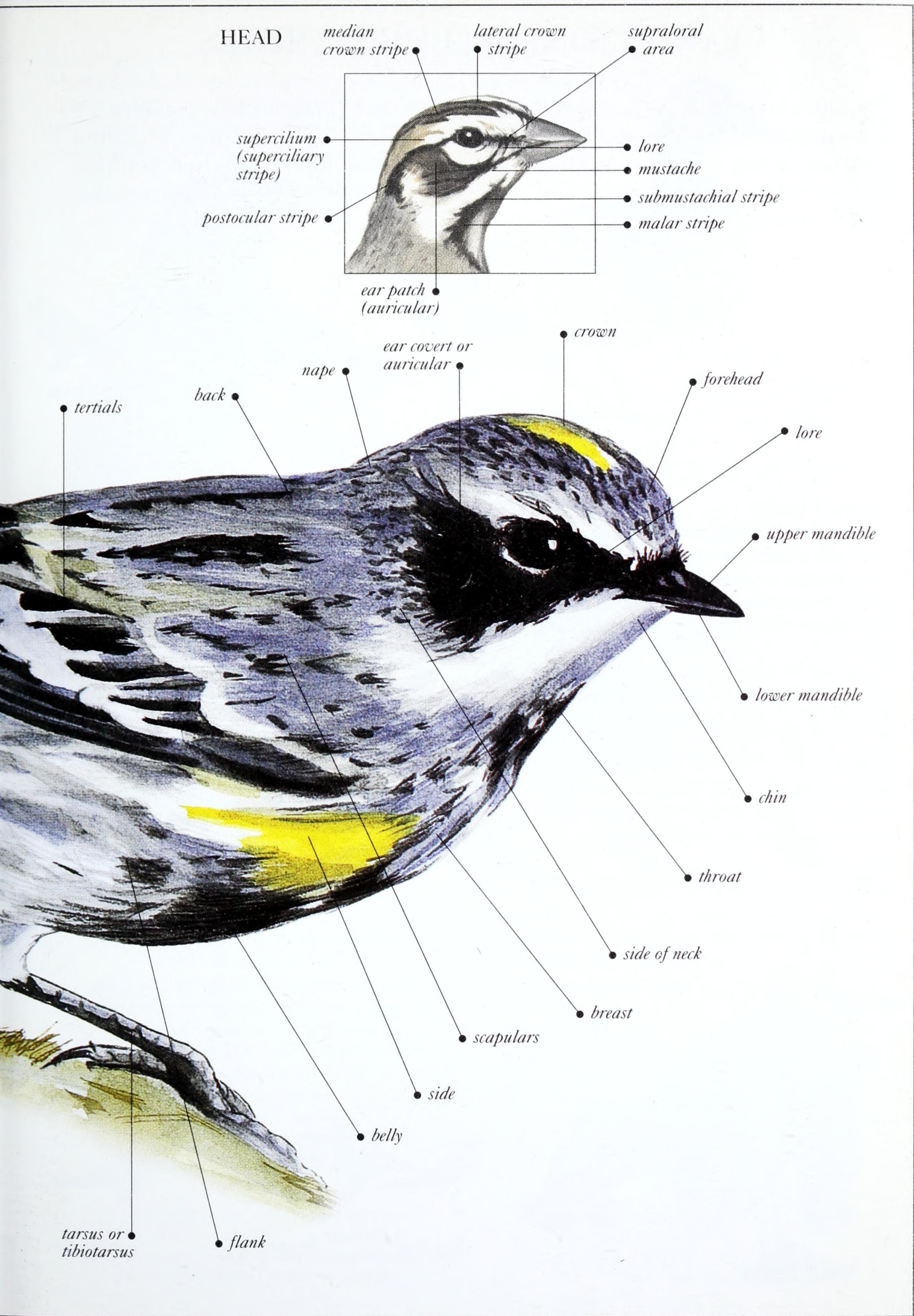
1. Start by looking at the bird’s head. Note its bill and the markings on its face.

2. Get a feel for the bird’s overall shape and size and note body markings.

3. Note shapes and markings of tail and wings.

4. Watch it fly and note markings visible in flight.



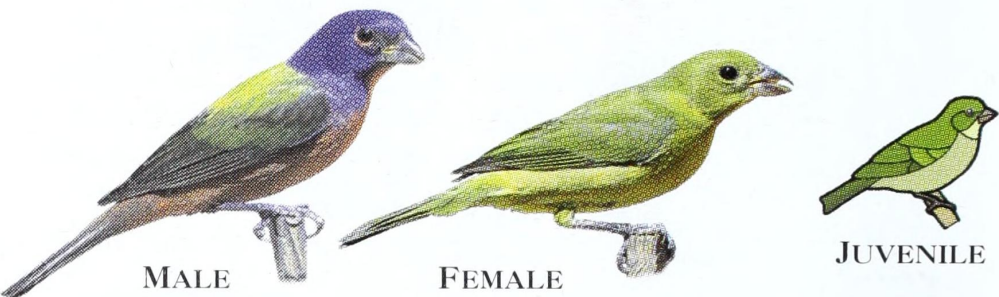


VARIATIONS WITHIN SPECIES

Birds are the most colorful of all terrestrial vertebrates. Their coloration varies widely not only from species to species but within species. Often plumage colors differ between the sexes, between adults and their young, and from season to season. All of these different color patterns increase the challenge of identification for the birder.

MALE/FEMALE VARIATIONS

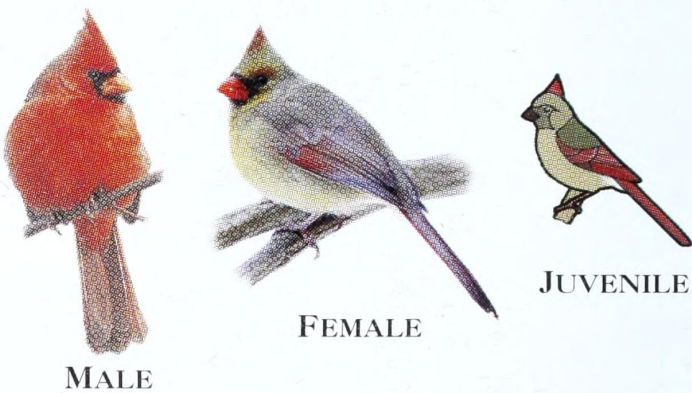
Within a species, adult males often differ in color and pattern of plumage, and sometimes in size, from adult females.



PAINTED BUNTINGS have three distinct plumages.

JUVENILE PLUMAGE VARIATIONS

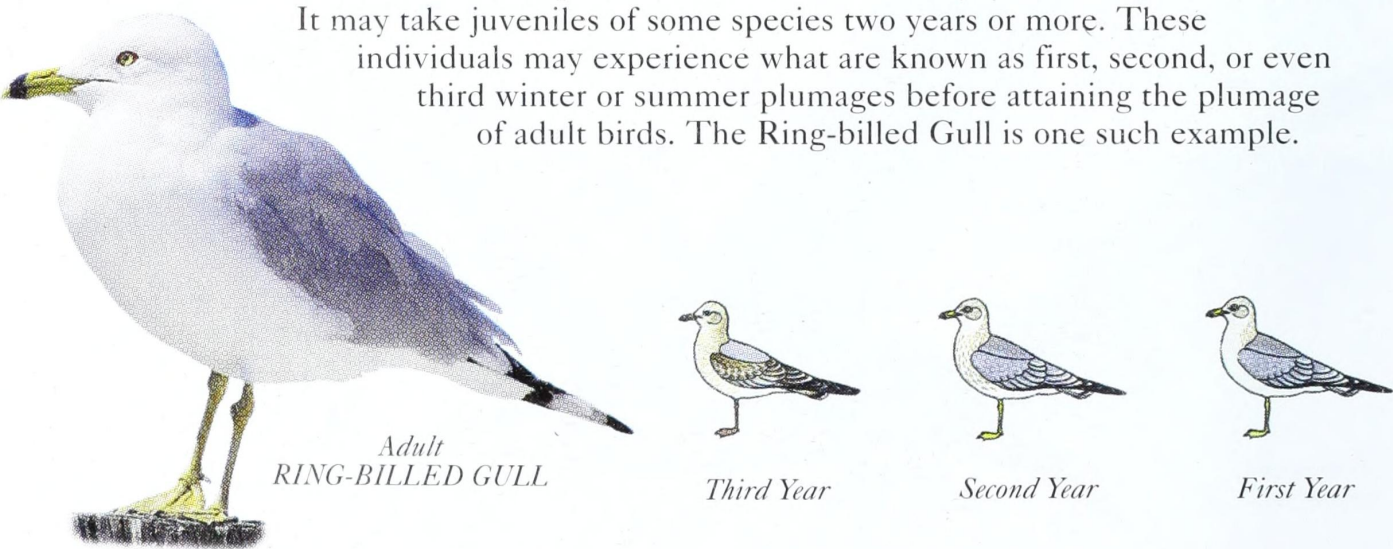
On an individual bird, color changes occur when feathers molt, or drop from their follicles to be replaced by new feathers. In its life span a bird will molt many times. After its first molt, when it loses its natal down, the bird will attain its *juvenile plumage*. This will be its first plumage with contour and flight feathers. This plumage often does not resemble that of either adult and is worn briefly for a few weeks or months. For the purposes of this book the term “juvenile” is used to refer to subadult plumaged birds that may, or may not, be sexually mature.



Male and female NORTHERN CARDINALS have different plumages, while juveniles resemble females.

OTHER SUBADULT PLUMAGES

Although in many species, such as the bunting and cardinal, the juvenile attains adult plumage after its first year, there are species in which it takes the juvenile longer to do this. It may take juveniles of some species two years or more. These individuals may experience what are known as first, second, or even third winter or summer plumages before attaining the plumage of adult birds. The Ring-billed Gull is one such example.



SEASONAL VARIATIONS IN ADULT BIRDS

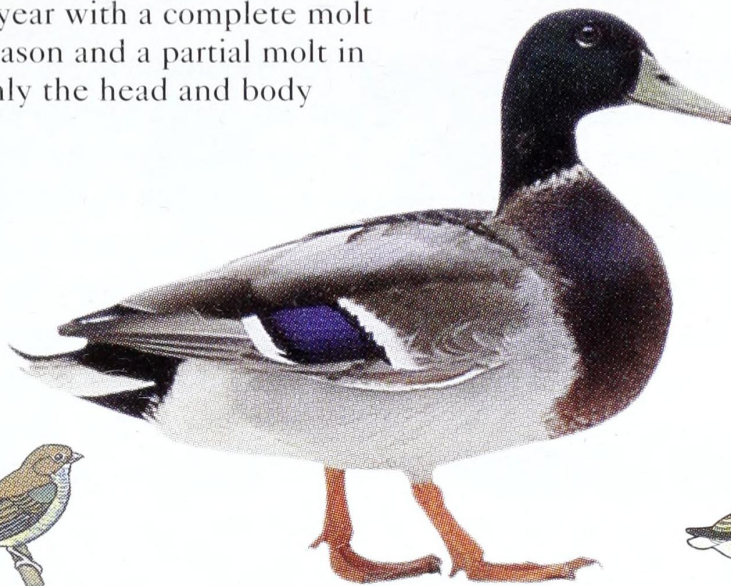
Most adult birds have two molts a year with a complete molt of all feathers after the breeding season and a partial molt in late winter/early spring in which only the head and body feathers are replaced.



INDIGO BUNTING
in breeding plumage



INDIGO BUNTING
in winter plumage



MALLARD in
breeding plumage



MALLARD in
eclipse plumage

The late winter or early spring molt produces the brighter plumage associated with many breeding birds and is called the *breeding plumage* or *alternate plumage*. Male ducks undergo a molt just after the nesting season begins and get a fresh coat of feathers that is drab like the female's called an *eclipse plumage*. Fall molts produce a plumage called *winter plumage*, *fall plumage*, or *basic plumage*.

OTHER VARIATIONS

Some genetic variations in color and pattern can be seen among populations representing different geographical races, of a species. These races are also referred to as subspecies.



SLATE-COLORED
JUNCO



OREGON
JUNCO



PINK-SIDED
JUNCO



WHITE-WINGED
JUNCO



GRAY-HEADED
JUNCO

The DARK-EYED JUNCO has five adult plumage variations associated with different geographical regions.

Hybrids between species may produce birds that share some characteristics of each parent but still have a very different appearance.



LAWRENCE'S
WARBLER



BREWSTER'S
WARBLER

Results from crosses between Golden-winged Warblers and Blue-winged Warblers and their offspring.

Some species have two or more color phases or morphs.



The EASTERN SCREECH-OWL has red, gray, and brown morphs.

HOW TO IDENTIFY BIRDS

Birds that come to backyard feeders often stay long enough for you to study them in detail, but not all birds are so cooperative and often a fleeting glimpse is all you get. Learn to get the best look you can under the conditions and to see the entire bird well. First impressions of a bird, especially a new species for you, will give you clues for comparing it with birds you already know. What you are looking for are field marks, those physical clues that include size, shape, color patterns, and behavior, and also the habitat the bird is in and the sounds it may make.

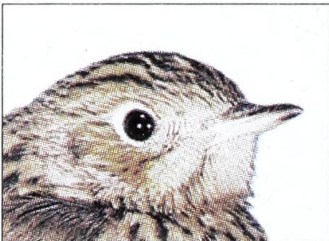
Learn to routinely and quickly look at the details of the head; markings on the body, wings, and tail; and the shapes of the bird's parts.

HEAD

Is the crown:



striped



streaked



capped



crested

Look for other markings on the face such as:



superciliary stripes



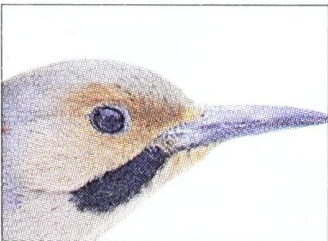
eye lines



eye rings



spectacles



mustache marks



malar marks



ear patches



a mask through the eye

BODY PLUMAGE

Are the underparts:



plain and unmarked



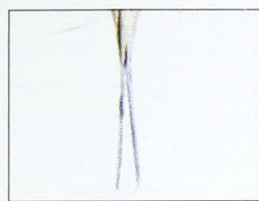
streaked



spotted

TAIL

Is the tail:



forked



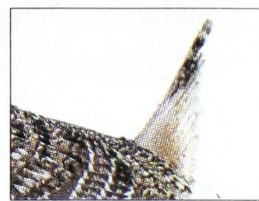
rounded



fan-shaped



wedge-shaped



pointed



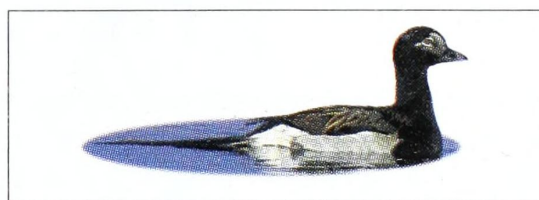
notched



square



short



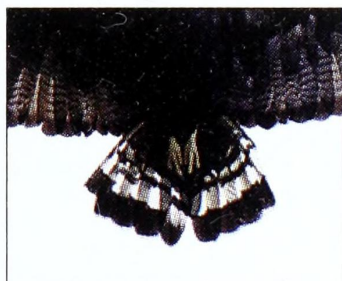
long

MARKINGS

Does it have distinctive wing or tail markings such as:



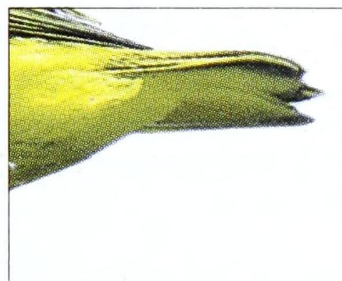
bars



bands



spots



contrasting colors

BILL

Is the bill:



cone-shaped



needlelike



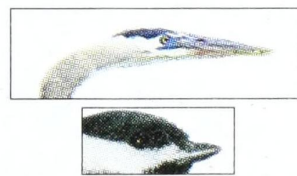
hooked



decurved



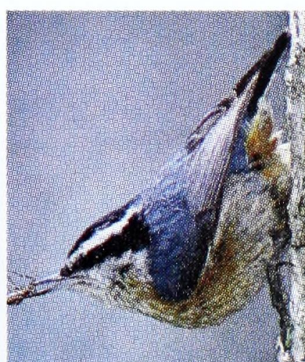
spatulate



long or short

**SONG**

Many expert birders rely on their ears as much as their eyes to identify birds. Any of the many cassette tapes, CDs, or videos can help you learn the songs, calls, and other sounds birds make.

**BEHAVIOR**

The behavior of the bird will also provide clues to its identity. Does it bob, wag, or pump its tail either up and down or back and forth? Note its flight pattern. Does it back down a tree or go headfirst? For more information on Behavior, see page 22.

IDENTIFYING BIRDS IN FLIGHT

How a bird flies – the speed of the wing stroke as well as the pattern – can often help you recognize a species.

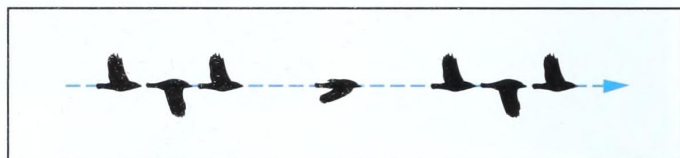
Direct – steady flight with regular wing beats, along a constant line; typical of most species, including waterfowl, herons, doves, crows, shorebirds, and many songbirds.



Dynamic soaring – glides over water “downhill” with the wind to its back and when close to the surface quickly turns 180 degrees back into the wind. There the bird is lifted back up to near the original height upon which it turns back and soars “downhill” again. Characteristic of many pelagic species, including albatrosses, shearwaters, and petrels.



Flap and glide – alternates a burst of several wing beats with a short or long level glide. Many birds of prey, both hawks and owls, use this flight pattern as do Black Vultures, ibis, and pelicans.



Flightless – many species living in environments free of predators have given up the energy-demanding activity of flight. The only flightless North American species, the Great Auk, was hunted to extinction in 1844.



Glide – wings are held fully or partially extended as the bird loses altitude. Many birds glide down to a landing, or from perch to perch. Hawks may glide from the top of one thermal to the bottom of the next in migration.



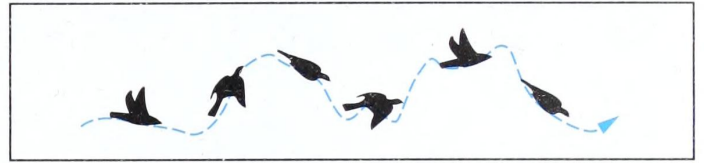
Hawking – flying up from the ground or down from an aerial perch to seize a flying insect and looping back down to the same or nearby perch. Characteristic of flycatchers and other small, active insect-eating birds such as warblers, the Cedar Waxwing, and several species of woodpeckers.



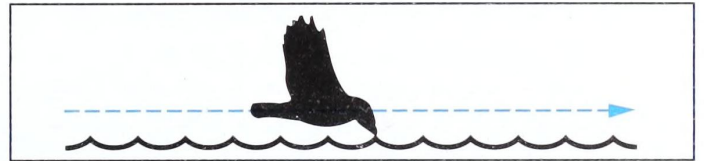
Hovering – rapid wingbeats while the bird remains suspended in one spot over the ground or water. Typical of hummingbirds, kingfishers, American Kestrel, Osprey, Rough-legged Hawk and many small birds that hover briefly to glean food from vegetation.



Mothlike – an erratic, sometimes bouncy, slow flight seen in nightjars, a few storm-petrels, and in the display flights of some small birds.



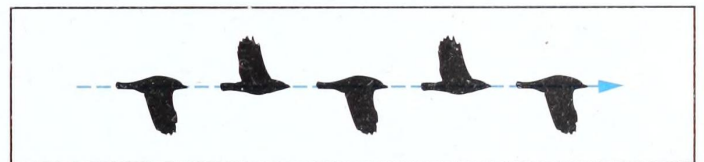
Skims – the flight pattern of the Black Skimmer in which the bird flies a steady course with its lower mandible cleaving the surface of still water as it feeds.



Static soaring – requires about a twentieth of the energy of flapping flight. Birds soar on rising heated columns of air, thermals, or on deflected currents and updrafts. Large hawks, eagles, vultures, storks, White Pelicans, and gulls soar this way.



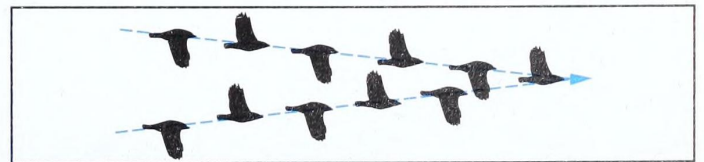
Straight line formation – an energy-saving style of flight used by some larger birds such as cormorants, pelicans, ibis, some waterfowl, and others. Birds may fly one behind the other, or abreast as do some scoters and eiders.



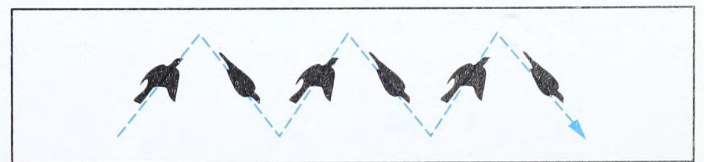
Undulating – some small birds conserve energy by rising on one or more wing beats and then folding the wings to the body and swooping down to the next wing beat. Characteristic of woodpeckers, finches, and chickadees.



V formation – an energy-saving flight style used by some larger birds, including ducks, geese, cranes, and cormorants.



Zigzag – a pattern used by birds flushed from the ground as a way to elude predators. The Common Snipe and several species of quail are good examples.



BEHAVIOR

A large portion of the bird behavior we admire is instinctive and associated with particular species and families. So as you look for field marks, notice the bird's body language. It will give you many clues to its identity.

TAIL MOVEMENT

Some birds flip their tails as they move or perch. The tail may be cocked at an angle over the back, fanned open or closed, wagged, bobbed, or pumped up or down. Some birds constantly bob their bodies up and down as they walk or stand; others bob or jerk occasionally, while others sway back and forth as they walk.

BODY MOVEMENT

Some birds hop like a sparrow. Some run or walk. They may climb trees straight up, hitch up or back down them, walk headfirst down them, or cling upside down. Many birds wade like herons and egrets, or swim like ducks and geese. Some aquatic species feed by dabbling or tipping up their bodies with their heads and necks beneath the surface. Others dive completely below the surface.



BEWICK'S WREN holds its tail high above its back as it hops, often flicking it from side to side.



The PAINTED REDSTART spreads its tail, flashing the white outer tail feathers.



The BLUE-WINGED TEAL dabbles for food.



The TRICOLORED HERON wades.

FORAGING

Notice whether the bird forages on the ground, in the treetops, or at the mid-story level. Shorebirds may stay on the dry sand or away from the water's edge on a mudflat, or they may wade in the shallows, while some species may wade up to their bellies. Some shorebirds pick at their food while others drill and probe rapidly in the mud.



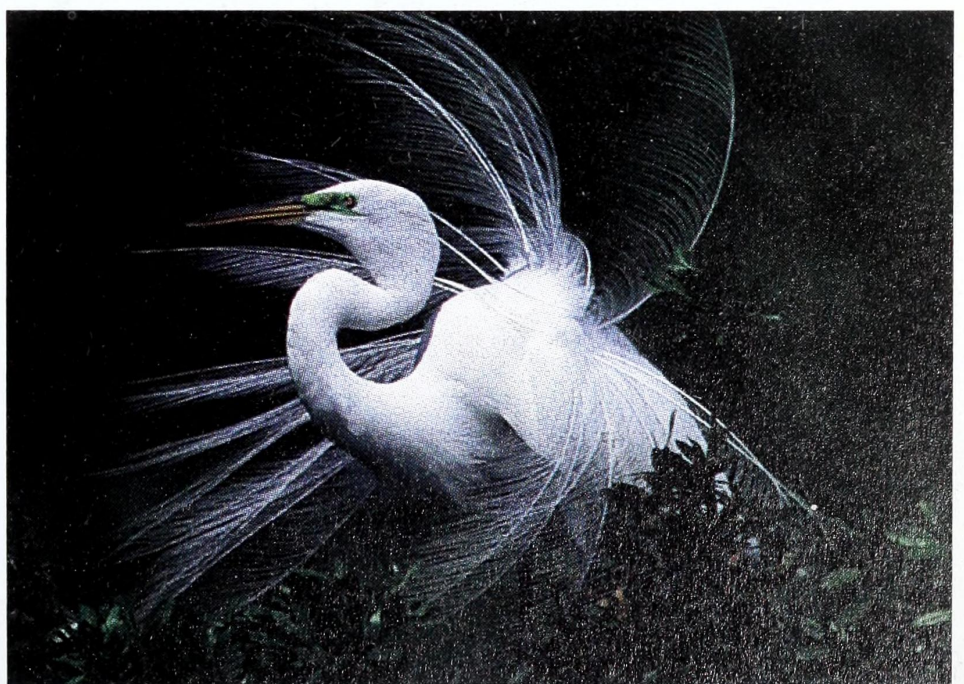
A juvenile WHITE IBIS probes with its bill for food in shallow water.



These MOURNING DOVES are foraging on the ground.

DISPLAY BEHAVIORS

Many species exhibit distinctive display behaviors during breeding season. They may dance like Prairie-Chickens, cranes, or Western Grebes; skylark like sparrows or buntings; or put on the aerial shows of woodcock and snipe. Many species, especially ground-nesters, will try to lead intruders away from the nest with distraction displays including the broken-wing or crippled-bird act.



The GREAT EGRET flashes its long white plumes in courtship display.

ABUNDANCE AND DISTRIBUTION

What does it mean when someone says a bird is “common” or that a species is “abundant” or “rare?” To appreciate a bird species’ presence (or lack of it) in a given region you need to consider the factors of habitat, geographical range, and season of the year. Keep in mind that the distribution and abundance of birds, among the most mobile of the earth’s creatures, are not static and the boundaries of populations often

change. Birds are easily impacted by changes in climate and habitat brought about by natural or human causes, with seasonal migrations being the most obvious result. Thus knowing the seasonal occurrence of a bird is important in confirming its identification. The range maps in this guide are color-coded to provide you with this information. You can get even more specific information from local checklists, local bird books, websites, and local birders.



EUROPEAN
STARLING

• *Abundant* means a species is so conspicuous that birders usually observe more than 25 individuals daily in proper habitat and season.

• *Common* means birders are likely to see 5–25 individuals daily in proper habitat and season.



BLACK-CAPPED
CHICKADEE

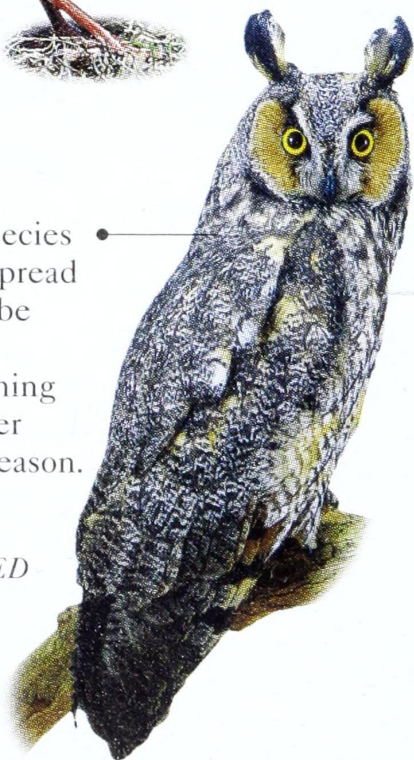
• *Uncommon* species can be widespread but may not be observed by birders searching for it in proper habitat and season.

• *Fairly common* means a species is common enough that birders should observe at least one individual daily in proper habitat and season.



YELLOW-THROATED
VIREO

LONG-EARED
OWL



• *Casual* means a bird that wanders into North America at infrequent intervals and is not observed annually, but exhibits a pattern of occurrence over several decades.



ANTILLEAN NIGHTHAWK

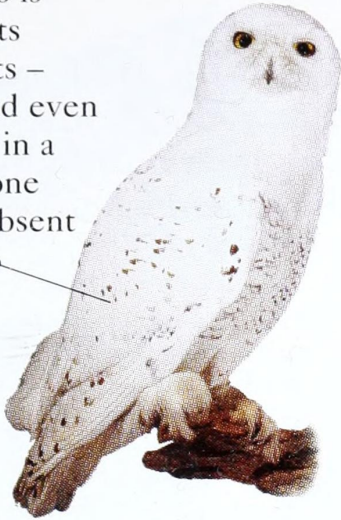
• *Rare* can mean either that the species is widely distributed outside North America but exists in low numbers here, or that the entire population is small and local.



WHITE-THROATED
ROBIN

Irruptive means the species is erratic in its movements – present and even numerous in a region in one year and absent the next.

SNOWY OWL



WHITE-EYED VIREO

• *Vagrant* is a migrant that has strayed off its usual route.

• *Introduced* means a non-native species deliberately released in a legal effort to establish a population.

RING-NECKED PHEASANT



• *Exotic* means a non-native species illegally released or escaped, such as the many parrot species in south Florida, or a non-native species that has arrived in the region on its own like the Cattle Egret, or with passive human assistance (such as hitching a transoceanic ride on a ship).

CATTLE EGRET



• *Permanent residents* live in the same geographic region all year.

NORTHERN CARDINAL



• *Summer residents* breed and raise their young in one region and leave to winter in another region, usually to the south.

CEDAR WAXWING



• *Accidentals* are species that have occurred fewer than ten times in a region.

SHY ALBATROSS



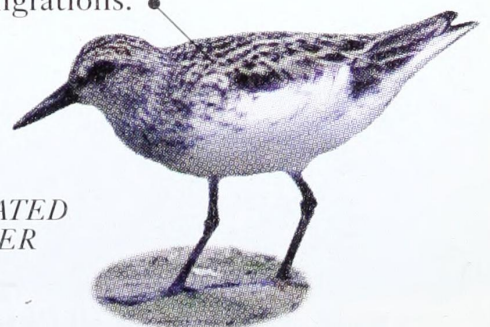
AMERICAN TREE SPARROW



• *Winter residents* arrive in a region only during the winter months after their breeding season, and usually breed to the north of it.

• *Transients* pass through a region only once or twice a year during their spring and/or fall migrations.

SEMIPALMATED SANDPIPER



WATCHING BIRDS IN THE BACKYARD

If you provide suitable food, shelter, and water, birds will come to your backyard. If you offer a variety of these necessities you will attract a greater diversity of birds. Place your feeders, nesting boxes, and birdbaths where the birds will feel safe from people and animals and where you can see the birds as you go about your daily routine.

FOOD AND FEEDERS

Many people enjoy feeding birds year-round. Basic types of feeders include platform feeders, hopper feeders, tube feeders, ball feeders, window feeders, fruit feeders, nectar feeders, and suet feeders. Standard foods include black (oil) sunflower seed (the best single seed), striped sunflower seed, hulled sunflower (chips/hearts) seed, niger (called "thistle") seed, safflower seed, white proso millet seed, red millet seed, milo seed, corn (whole kernel, shelled, and cracked), peanuts, peanut butter, suet and suet mixes, fruits, and nectar.



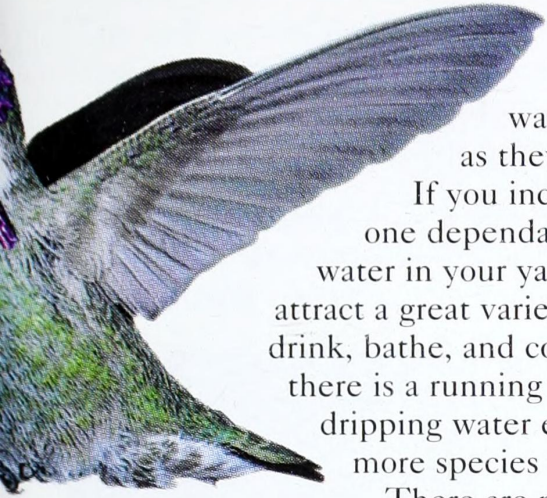
HOUSE FINCHES and a NORTHERN CARDINAL find food and shelter.



AMERICAN GOLDFINCHES at a tube feeder.



A female RED-BELLIED WOODPECKER finds suet in a wire cage feeder.



WATER

Birds need water as much as they need food.

If you include even one dependable source of water in your yard you will attract a great variety of birds to drink, bathe, and cool off. If there is a running water or dripping water element even more species will come.

There are many styles of water containers to choose from but the only requirement is: Maintain a stable supply of clean water in a shallow container no deeper than three inches.



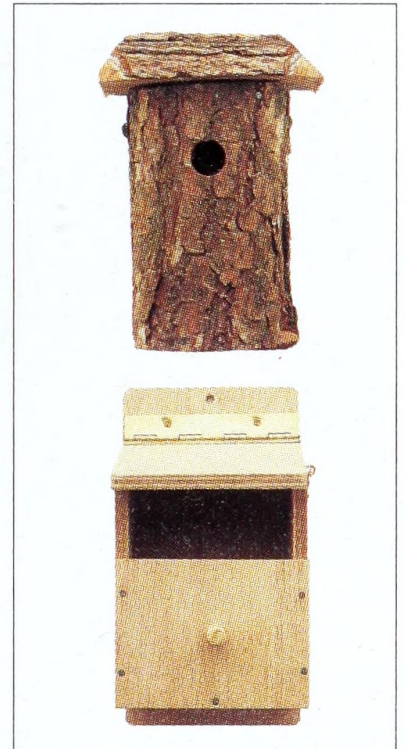
NORTHERN CARDINAL at a traditional birdbath.



"Hotel" for PURPLE MARTINS.

SHELTER AND NEST BOXES

Planting trees, shrubs, and other vegetation not only provides food for birds but shelter and nesting places. Many species will use nest boxes. Others will use nesting shelves or ledges, and larger species will use raised nesting platforms. Nesting boxes can be made of wood, aluminum, or plastic; natural gourds are often used for martins and swallows.



Two types of nest boxes you can make yourself.



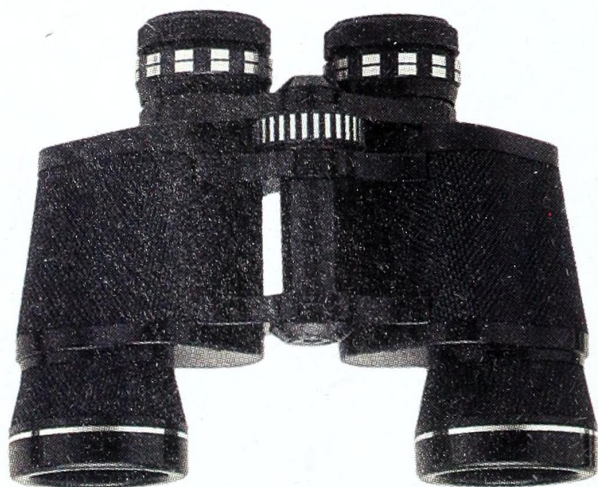
Urban nest for MOURNING DOVES.

WATCHING BIRDS IN THE FIELD

Very little gear is needed to watch birds, other than your own curiosity. Two indispensable items are a good pair of binoculars and a good field guide. Birding with experienced birders who know the area is also valuable in getting you off to a good start. It is a good idea to keep a small notebook handy. Later you may want to add a camera and telephoto lens; a spotting scope with tripod becomes a good investment for the more serious birder.



Birders at Point Pelee National Park, Ontario.



BINOCULARS
*Look for magnifying ranges from
7x to 10x power.*

BINOCULARS

Look for magnifying ranges from 7x to 10x power. The outside diameter of the lenses that are farthest from your eyes (the objective lenses) should range from 35mm to 50mm. The power of magnification and the diameter of the objective lenses (the latter helps determine light-gathering ability) are combined and stamped on the binoculars as two numbers such as: 7 x 35, 7 x 50, or 8 x 42. Small compact binoculars such as 8 x 23 are lightweight and tempting to carry in the field, but the small size of the objective lenses limits the amount of light they can gather, making birdwatching under low light difficult.

BASIC PHOTOGRAPHY EQUIPMENT

The best camera body for bird photography is a 35mm single lens reflex (SLR). This camera allows you to view the subject directly through the lens. Many birds move quickly so your camera should have a fast shutter speed of at least 1/500 sec or higher, and the films you use with natural light should have high exposure speeds in the range of 200–400 ISO (ASA). A telephoto lens will allow you to photograph a larger image; you will need one in the 300mm to 500mm range. A sturdy tripod is required for sharp exposures. Use blinds to conceal yourself from the bird and let you get much closer. Automobiles will work as long as you stay inside.



CAMERA
35mm single lens reflex (SLR).



TRIPOD
*To improve the sharpness
of your exposures.*



TELEPHOTO LENS
*Look for a lens in the 300 mm to
500mm range.*



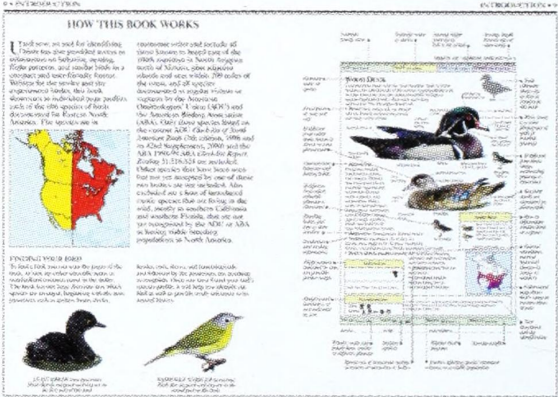
A temporary moveable blind in the form of a simple tent can conceal birders enough to put wary birds at ease.

HOW TO BE A BETTER BIRDER

There are many ways to improve your birding skills and increase your enjoyment of birdwatching.

STUDY AT HOME

Time spent at home studying your field guide will make a big difference. Find local checklists of birds, or state and regional bird books, that provide even more specific information about the birds in your area. Listen to recordings of bird songs and calls.

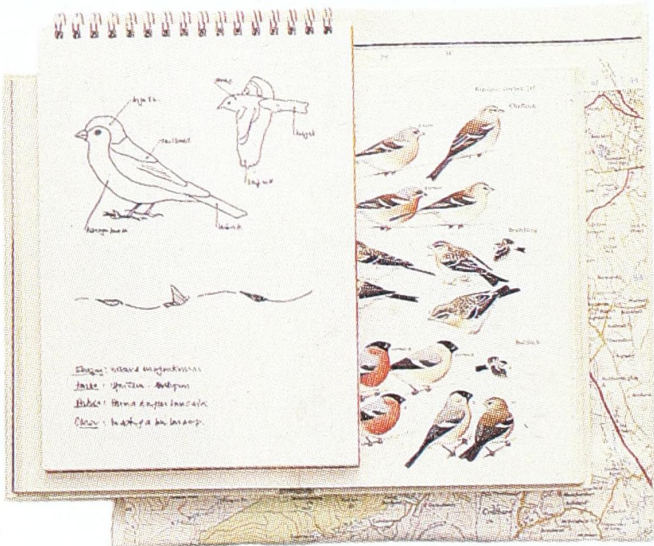


Birders at Cape May Point, New Jersey.

IMPROVE YOUR FIELD SKILLS

Birds have keen color eyesight and hearing. They are frightened by sudden movements, loud noises, and bright clothing that does not “blend” with the background. Experienced birders move deliberately, stalking quietly. They converse in low tones and stand patiently.

Birds are curious and attracted to sounds. When you make “pishing” noises (forcing air out through clenched teeth as if saying “pish, pish, pish”), or “squeaking” (making a high-pitched squeak by sucking air through closely pursed lips, a sound that can be amplified by “kissing” the back of your hand) many birds’ curiosity will be piqued and they will come closer. Often they produce alarm notes or assembly calls, causing even more birds to come out where you can see them.



KEEP A RECORD

Keeping good records of the birds you see will help you learn when seasonal species are present and how abundant they may be. There is still much science does not know about birds, particularly about behavior and abundance in some habitats, and the amateur birder can make valuable contributions.

PRACTICE BIRDING ETHICS

Birding is not without its responsibility to the welfare of the bird. The American Birding Association has compiled a Code of Ethics for its members. (Copies can be obtained by writing to the ABA at the address below.) Their basic message is that birders' actions should not endanger the welfare of birds or other wildlife; they should not harm the natural environment; and birders must always respect the rights of others, especially their rights to privacy and private property rights.



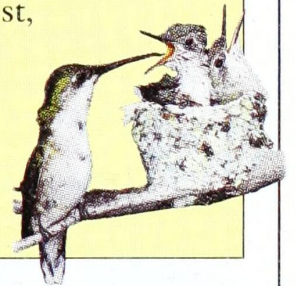
A female feeds baby bluebirds.



The welfare of fledgling SCREECH-OWLS like these depends on birders who practice good ethics.

BIRD PROTECTION IN BREEDING SEASON

Remember that birds are sensitive to disturbance. Nothing should be done that will frighten them or alter the surroundings of their nest. Once frightened, they may abandon the nest, and this could set their breeding back a whole year.



JOIN A CLUB

Every state and province has established bird clubs. Many local clubs are associated with state, provincial, or regional ornithological societies that network activities, have regular meetings, and publish newsletters. You can locate your nearest bird clubs on the internet, or through the Conservation Directory of the National Wildlife Federation, your state conservation or wildlife department, local library, or newspaper.

Birding organizations exist on the national and international level as well. Some national organizations and their publications are:

- American Birding Association, PO Box 6599, Colorado Springs, CO 80934; *Birding*.
- American Ornithologists' Union, *The Auk*; Association of Field Ornithologists, *Journal of Field Ornithology*; Cooper Ornithological Society, *The Condor*; Wilson Ornithological Society, *Wilson Bulletin*. All can be contacted c/o Ornithological Societies of North America, 810E, 10th Street, Lawrence, KS 66044.
- Laboratory of Ornithology at Cornell University, 159 Sapsucker Woods Road, Ithaca, NY 14850; *Living Bird* quarterly.
- National Audubon Society, 700 Broadway, New York, NY 10003.

CONSERVATION

We are lucky that here in North America we have lost relatively few bird species to extinction. Laws to protect some species were passed as early as the late 1700s, but even then some came too late or were not enforced. Today, all species of birds native to North America are protected by state, provincial, and federal laws and cannot be collected or held in captivity without a legal permit (introduced, non-native species are not so protected). Some species, considered game species, are managed and can be legally harvested during hunting seasons.

Still, many species of North American birds are in decline. Several species require management because their populations have become dangerously low. These species are given additional protection and listed by state, provincial, or federal authorities as “threatened” or “endangered.” The bird conservation effort across America is joined by organizations such as the National Audubon Society, the American Bird Conservancy, and



The WOOD STORK is declining due to habitat destruction and the disruption of water flow through southern Florida.



Some populations of LEAST TERN are endangered due to human disturbance of nesting areas.

Partners in Flight. The latter group is an Americas-wide coalition of more than 160 organizations and government agencies. Many of our continent's birds have not fared well at the hands of man. They have been persecuted as pests, victimized by wanton shooting, deprived of habitat, subjected to poisons, forced into competition by introduced species,



The SPECTACLED EIDER has seen major decline in recent years due to the introduction of firearms into its limited nesting range.

and preyed upon by brood parasites. Many of the species that nest in North America, particularly songbirds and shorebirds, are neotropical migrants wintering in other countries where they are exposed to similar stresses, often with less protection.

Birds and other wildlife need our help now more than ever before. Conservation requires the support of every citizen to prevent the continued loss of our natural heritage.



The CALIFORNIA CONDOR is now nearly extinct in the wild due to hunting and lead poisoning.



LAUGHING GULLS and BROWN PELICANS live side by side with America's offshore oil industry.

EXTINCTION

The North American continent north of Mexico hosts more than 700 species of native nesting birds. Direct persecution and indirect population stresses caused by loss of required habitat – both factors generated by humans – have resulted in a small percentage that are now either extinct or on the very brink of extinction. Likewise, many other species are declining and some are in serious trouble. The first to go was the Great Auk, the only flightless species on the continent, after centuries of unregulated exploitation. Many of these species were abundant, and some, like the Passenger Pigeon, were among the most numerous species in North America. Often sheer numbers made them easy to kill in quantity and their marketing profitable. Improvements in firearms and transportation, plus the conversion of the vast eastern forests into farmland, hastened the decline of these species.

Today we are more enlightened. We have enacted laws and extended efforts to save species. There are preservation success stories with species like Peregrine Falcons, Bald Eagles, Brown Pelicans, Ospreys, Whooping Cranes, and Trumpeter Swans. But, there is still much to do as human populations continue to alter critical habitats.

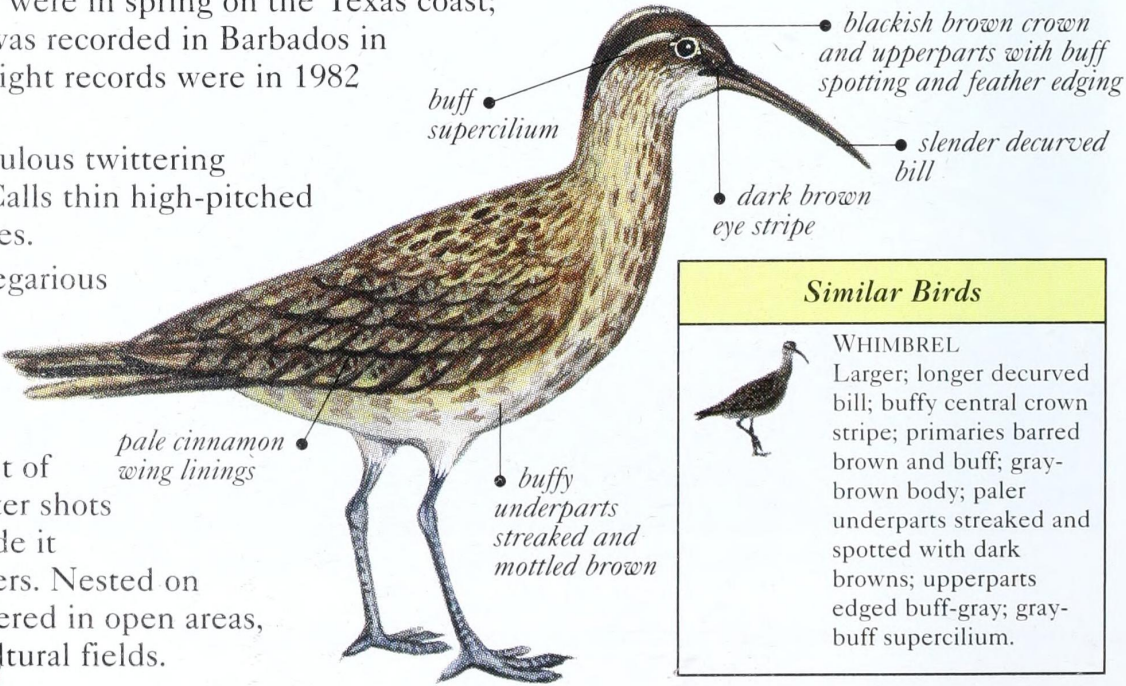
The Eskimo Curlew, Ivory-billed Woodpecker, and Bachman’s Warbler are considered probably extinct. The four species on the pages that follow, the Labrador Duck, Great Auk, Passenger Pigeon, and Carolina Parakeet, are now classified as extinct.

Family SCOLOPACIDAE	Species <i>Numenius borealis</i>	Length 14 inches	Wingspan 23–27 inches
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ESKIMO CURLEW

Once among the most numerous shorebirds in North America, this bird was rare by the 20th century due to unrestricted shooting during fall migration on the North Atlantic Coast, on the wintering grounds in Argentina, and in spring migration in Texas and on the Great Plains. Gregarious by nature, large flocks attracted market and sport hunters, who killed them by the wagonload and shipped them to eastern cities. Most records in the 20th century were in spring on the Texas coast; the last specimen was recorded in Barbados in 1963, and the last sight records were in 1982 in Canada.

- **SONG** Soft tremulous twittering whistles in flight. Calls thin high-pitched squeaks and whistles.
- **BEHAVIOR** Gregarious in migration and on wintering grounds; often in large flocks. Approachable; habit of returning to site after shots fired into flock made it vulnerable to hunters. Nested on Arctic tundra; wintered in open areas, prairies, and agricultural fields.



Similar Birds



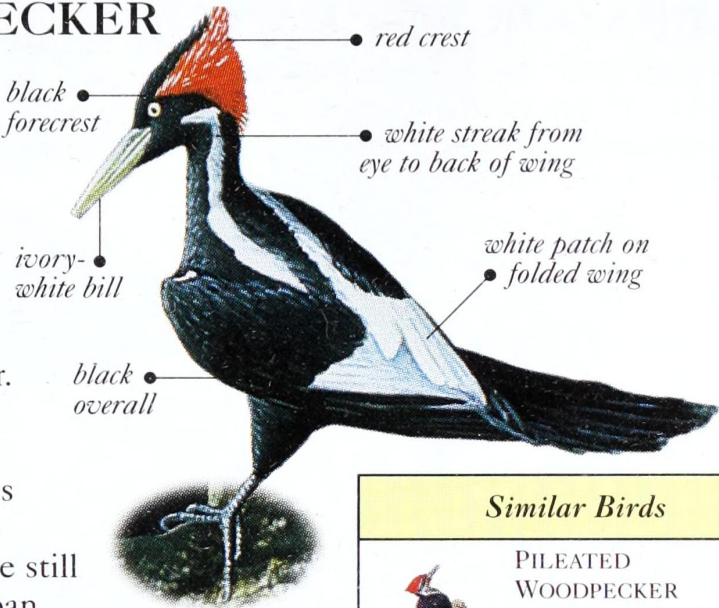
WHIMBREL
Larger; longer decurved bill; buffy central crown stripe; primaries barred brown and buff; gray-brown body; paler underparts streaked and spotted with dark browns; upperparts edged buff-gray; gray-buff supercilium.

Family PICIDAE	Species <i>Campephilus principalis</i>	Length 19.5 inches	Wingspan 30–32 inches
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IVORY-BILLED WOODPECKER

The largest woodpecker north of Mexico depended on large tracts of primeval bottomland and swamp forests to sustain its feeding habits. The head and bill were used by Native Americans for trade items and early settlers valued them for good luck, but it was the felling of the large southern forests and the loss of its food supply that doomed this woodpecker. Once it became rare, people hunted the remaining birds for museum and private collections. An estimated twenty-two birds existed in the US in 1938; the last records were in the 1940s. Unverified sightings are still being reported from the South, and a Cuban subspecies was confirmed to be alive in the late 1980s.

- **SONG** Nasal clarinet-like *yank, yank, yank*, often in a series like a large White-breasted Nuthatch.
- **BEHAVIOR** In pairs, mated for life, or in small family groups just after nesting season. Fed on wood-boring insects under bark of dead or dying trees, some fruits and berries. Ranged from Ohio River Valley to east Texas, Gulf Coast, and also to the state of Florida.



Similar Birds



PILEATED WOODPECKER
Smaller • male has red crest and mustache mark; black mask extends from lores to nape; white supercilium begins behind eye; white chin; white line extends from base of bill to sides of breast
• female has black forehead and mustache.

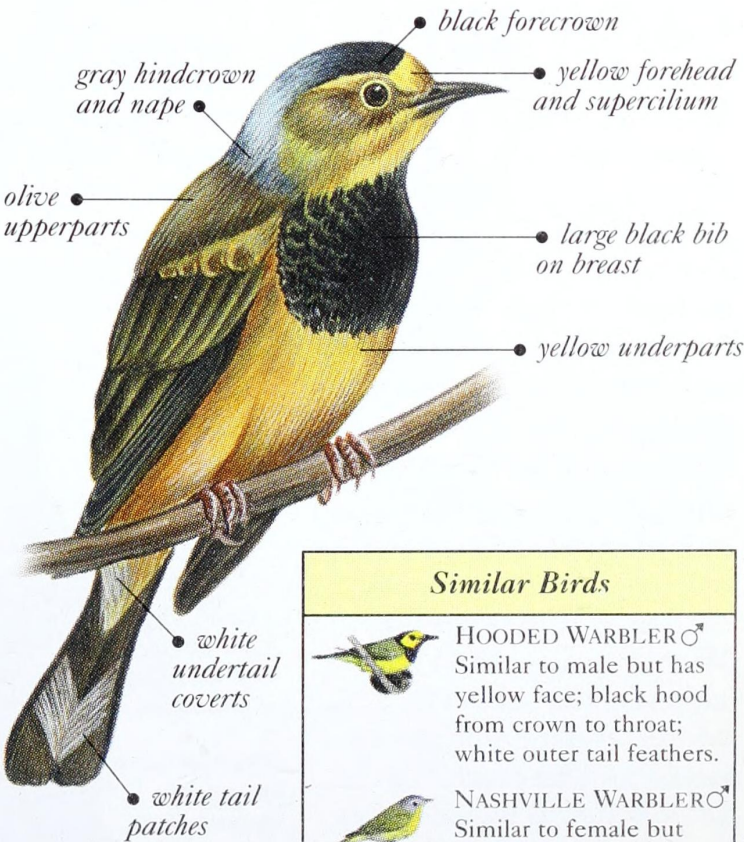


Family PARULIDAE	Species <i>Vermivora bachmanii</i>	Length 4.25–4.75 inches	Wingspan 6.75–7.5 inches
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BACHMAN'S WARBLER

Possibly never very numerous, this songbird lived in bottomland forests and swamps and their canebrakes along the coastal plain from southern Kentucky and Missouri to South Carolina. It was found in the Gulf coastal states in migration on its way to and from wintering grounds in Cuba and in some locations along the Suwannee River in Florida. The clearing of these forests for timber and agricultural drainage hastened the decline. The last certain US record was near Charleston, South Carolina, in 1962; and the last individual seen was a wintering female in Cuba in 1981.

- **SONG** Buzzy trill of 6–8 notes on a single pitch; similar to Worm-eating Warbler or Chipping Sparrow but higher pitched. Persistent singer on breeding grounds.
- **BEHAVIOR** Solitary or in pairs. Foraged at middle to high level in trees. Nested in thickets within 3 feet of ground in briers, canebrakes, or bushy tangles. Gleaned insects from foliage and branches.



Similar Birds



HOODED WARBLER ♂
Similar to male but has yellow face; black hood from crown to throat; white outer tail feathers.



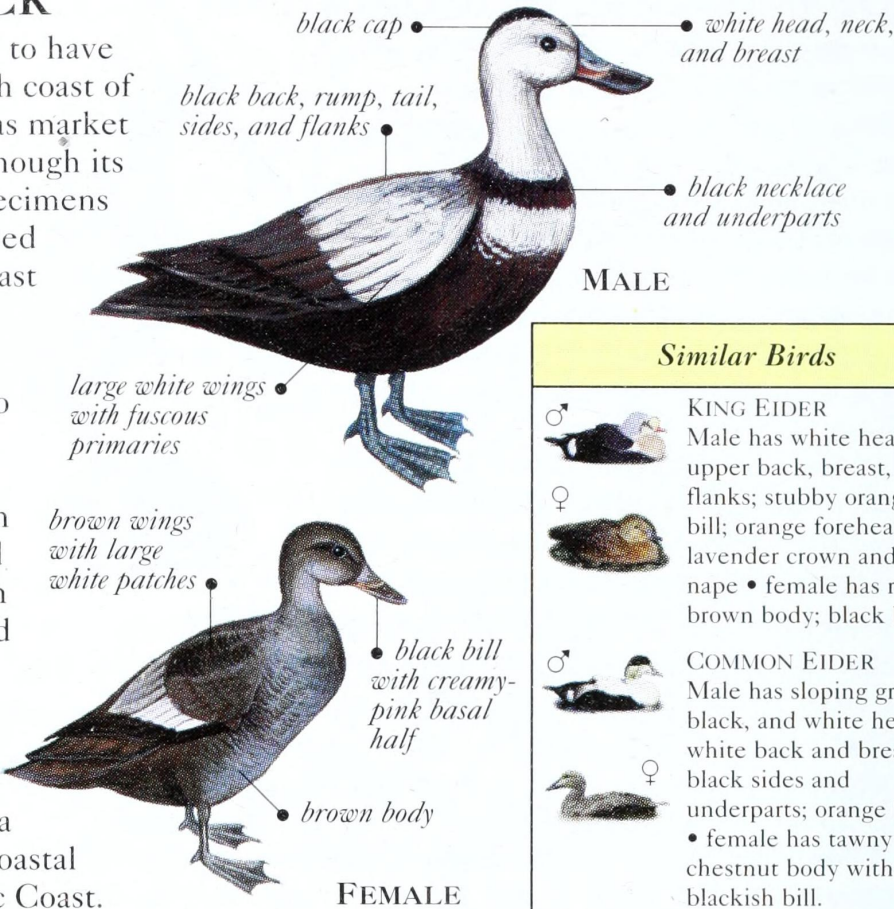
NASHVILLE WARBLER ♂
Similar to female but has yellow chin, throat, and underparts; gray head, crown, and nape.

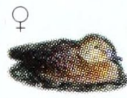
Family ANATIDAE	Species <i>Camptorhynchus labradorius</i>	Length 20 inches	Wingspan 30–32 inches
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LABRADOR DUCK

This small duck was thought to have nested on islands on the south coast of the Labrador Peninsula. It was market hunted into the 1860s even though its flesh was not relished and specimens often spoiled. The last recorded individual was shot off the coast of Long Island in 1875.

- **SONG** Unrecorded.
- **BEHAVIOR** Wary, quick to fly on whistling wings. Small flocks of 7–10 in winter. Leathery spoonlike expansion at end of upper mandible and prominent vertical lamellae in the lower mandible were used to sift shellfish from mud or sand. Reported to have fed on marine invertebrates and seaweed. Nested on tundra islands; wintered at sea frequenting sandy bays and coastal estuaries along North Atlantic Coast.



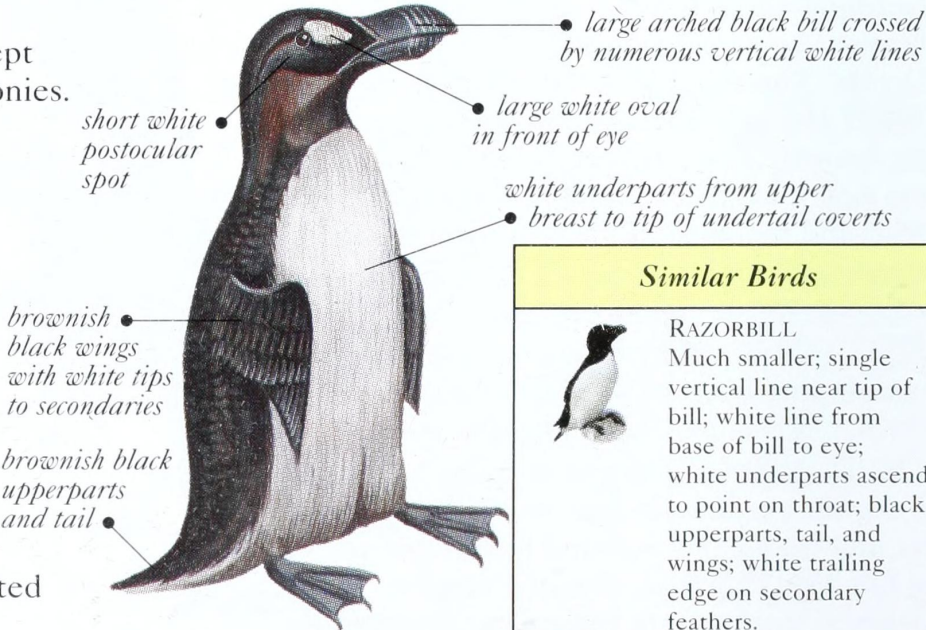
Similar Birds	
	KING EIDER Male has white head, upper back, breast, and flanks; stubby orange bill; orange forehead; lavender crown and nape • female has rusty brown body; black bill.
	
	COMMON EIDER Male has sloping green, black, and white head; white back and breast; black sides and underparts; orange bill • female has tawny chestnut body with blackish bill.
	

Family ALCIDAE	Species <i>Pinguinus impennis</i>	Length 28–30 inches	Wingspan 23–25 inches
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GREAT AUK

The largest alcid was the original penguin and the only flightless species on the continent in historical times. Widespread in the 16th and 17th centuries, it was recorded as breeding on islands from Scotland and Sweden to the Gulf of St. Lawrence and the Canadian Maritimes. Once numerous, centuries of raids on its colonies by sailors and fisherman who took adults and young for food brought it to extinction. Wintering along the Atlantic Coast occasionally as far south as Florida, the last known pair was captured at their nest on Eldey Rock off the coast of Iceland on June 3, 1844.

- **SONG** Generally silent except when alarmed in breeding colonies. Croak or guttural gurgling.
- **BEHAVIOR** Flightless. Gregarious; in flocks or small groups at sea. Nested in large colonies on isolated rocky islands in North Atlantic. Widespread at sea in the nonbreeding season in winter. Walked upright on land standing erect. Used short wings to move swiftly underwater, steering with its feet, diving down to an estimated 250 feet to feed on fish.



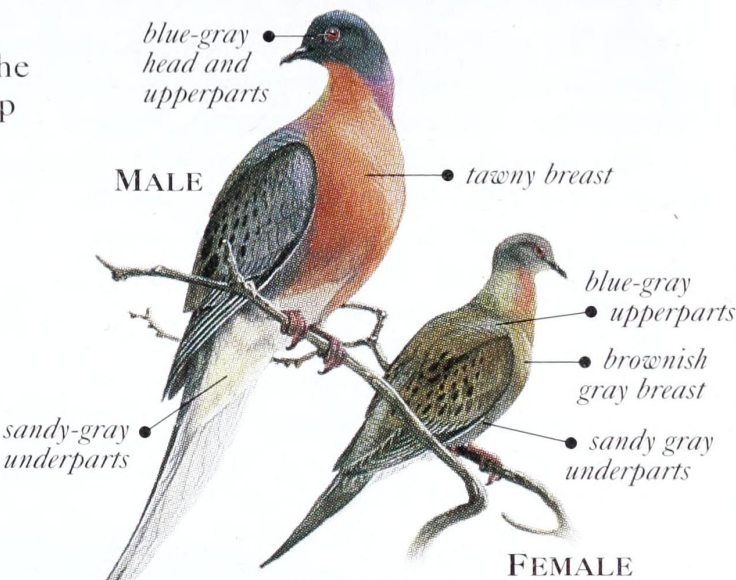
Similar Birds	
	RAZORBILL Much smaller; single vertical line near tip of bill; white line from base of bill to eye; white underparts ascend to point on throat; black upperparts, tail, and wings; white trailing edge on secondary feathers.

Family COLUMBIDAE	Species <i>Ectopistes migratorius</i>	Length 16 inches	Wingspan 24–25.5 inches
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PASSENGER PIGEON

The most abundant bird in North America at the time of European settlement may have made up a quarter of its bird population. The Passenger Pigeon and the eastern deciduous forest upon which it depended were destroyed simultaneously. John James Audubon described migrating flocks that stretched for miles in the sky and took three days to pass over, and which he estimated to contain over a billion birds. As the forest was reduced to farmland, the birds were hunted throughout the year. The last known wild specimen was shot in 1898; and the last surviving bird, Martha, a captive reared individual, died at age 29 in the Cincinnati Zoo in 1914.

- **SONG** Loud grating croaking, chattering, or clucking notes. Not dovelike.
- **BEHAVIOR** Highly gregarious; lived, foraged, wandered, and nested in large groups. Fed on tree seeds, fruits, berries, buds, and invertebrates. Nomadic; went where food was plentiful. Nested from Missouri, Kentucky, and Virginia northward into southern Canada and west to Kansas. Wintered south to Gulf Coast.



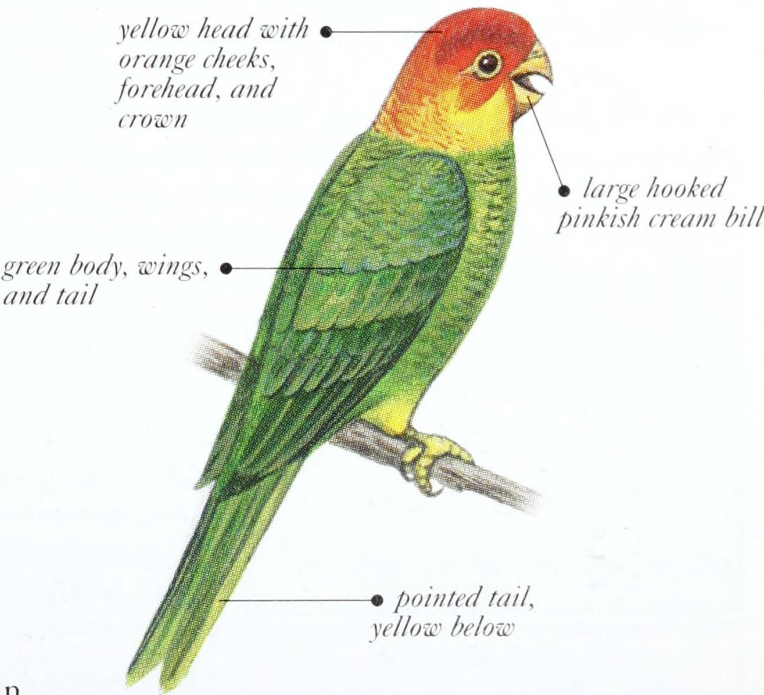
Similar Birds	
	MOURNING DOVE Smaller; pinkish fawn head and underparts; brownish gray upperparts; white-tipped outer tail feathers; black spots on upper inner wing; black spot on lower cheek.

Family PSITTACIDAE	Species <i>Conuropsis carolinensis</i>	Length 16 inches	Wingspan 24–26 inches
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CAROLINA PARAKEET

Once abundant in the East from eastern Nebraska to New York and south to the Gulf Coast, this beautiful parakeet was hunted for its feathers, the pet trade, for sport, and as a pest of orchards, cornfields, and gardens. Flocks had such strong bonds that when some of their numbers were killed the remainder of the flock returned to their bodies repeatedly until all were shot. By the late 1870s it existed only in remote Florida swamps; the last known birds were shot in the early 1900s, and the last reported individual of the only endemic US parrot died in the Cincinnati Zoo in the year 1914.

- **SONG** Loud quarrelsome screams given in flight.
- **BEHAVIOR** Social. Gregarious, occurring in flocks except in breeding season when pairs nested in dense colonies. Mated for life. Roosted communally in hollow trees. Fed in bottomland forests, riverbanks, and cypress swamps on tree seeds, thistle, cocklebur, grass seeds, fruits, and berries.

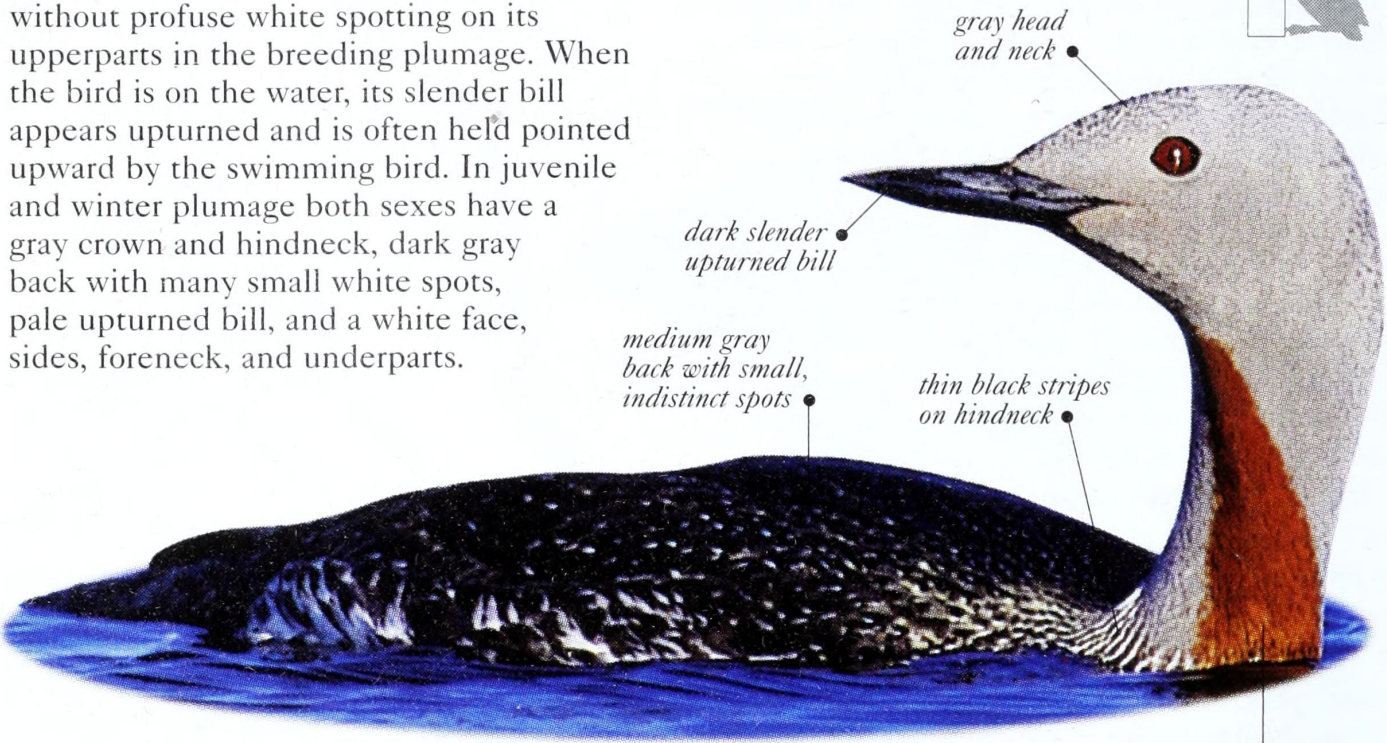


Similar Birds
No similar native species.

Family GAVIIDAE	Species <i>Gavia stellata</i>	Length 24–27 inches	Wingspan 42–45 inches
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RED-THROATED LOON

This is the smallest loon and the only one without profuse white spotting on its upperparts in the breeding plumage. When the bird is on the water, its slender bill appears upturned and is often held pointed upward by the swimming bird. In juvenile and winter plumage both sexes have a gray crown and hindneck, dark gray back with many small white spots, pale upturned bill, and a white face, sides, foreneck, and underparts.



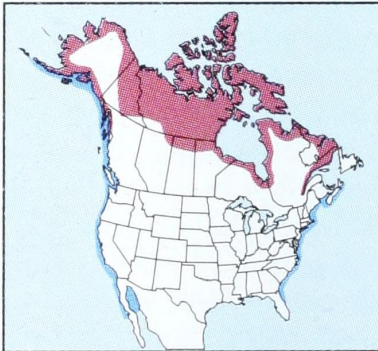
- **SONG** Usually silent. On breeding ground, prolonged wails and gooselike *kwuk-kwuk-kwuk*.
- **BEHAVIOR** Flies with neck drooping. Only loon to leap directly into flight from water or land. Feeds primarily on fish, which it catches in dives down to 90 feet. Solitary except on wintering grounds and in migration, when hundreds may congregate in bays along the coast.
- **BREEDING** Usually a solitary nester. Sometimes forms loose colonies.
- **NESTING** Incubation 24–29 days by both sexes. Young leave nest and take to water about 1 day after hatching, then fly at about 49–60 days. 1 brood per year.
- **POPULATION** Common to fairly common on breeding grounds; fairly common on coast in winter; casual to very uncommon inland in winter. Populations stable.



WINTER PLUMAGE

Similar Birds

ARCTIC LOON
PACIFIC LOON
Breeding adults have dark throat; dark flanks; large white spots on back • in winter plumage, lack white spots on back; bill not upturned; dark gray of crown and hind neck contrast sharply with white face and foreneck. • Arctic Loon in the West only.



Flight Pattern

Direct flight with swift rapid wing beats.

Nest Identification

Shape Location

Moist depression or heap of damp vegetation mixed with mud • male sometimes constructs copulation platform away from nest • 1–3 olive-green to dark brown eggs, sometimes with blackish brown spots.

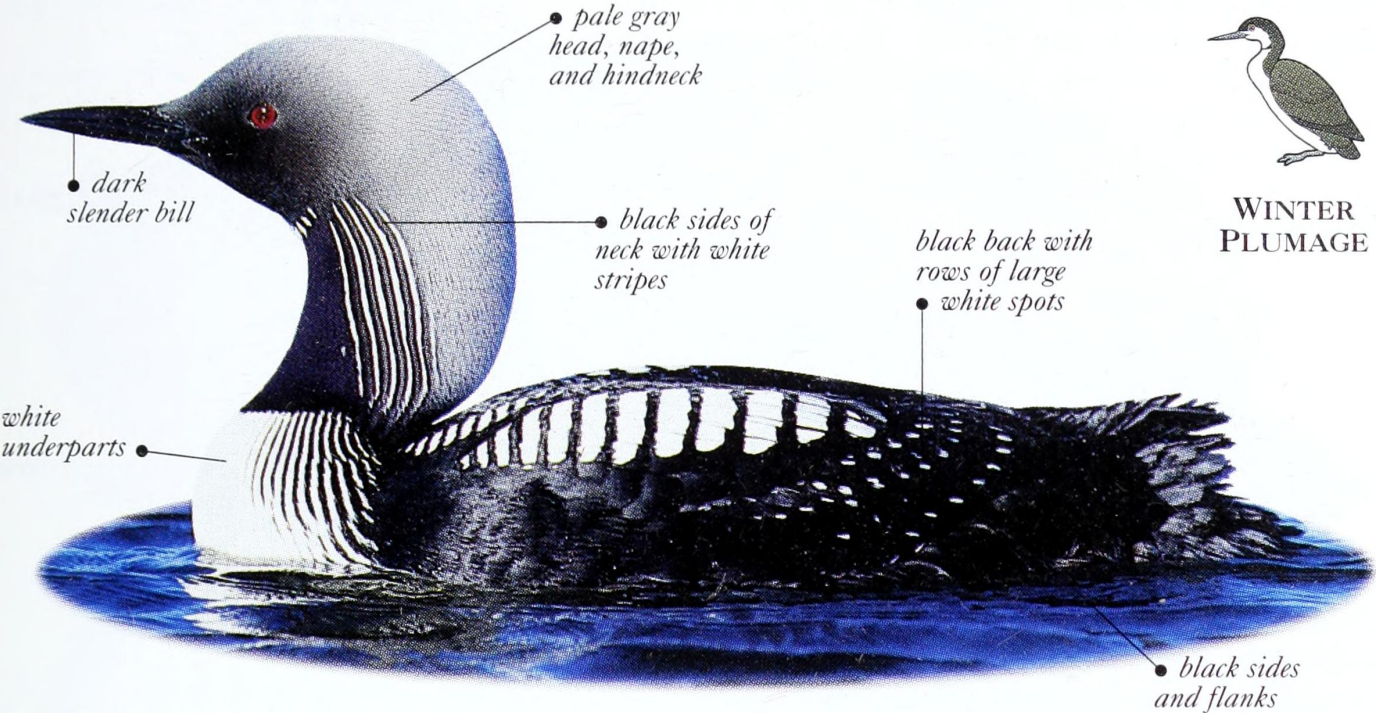
Plumage Sexes similar	Habitat	Migration Migratory	Weight 3.4 pounds
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DATE _____ TIME _____ LOCATION _____

Family GAVIIDAE	Species <i>Gavia pacifica</i>	Length 26 inches	Wingspan 43–48 inches
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PACIFIC LOON

Until recently this species was considered a race of the Arctic Loon, which it closely resembles. The Pacific Loon flies with its head and neck held straight. When swimming it holds its dark slender bill level. Winter adults have dark gray upperparts and a thin dark strap that reaches around the chin. Underparts are white year-round.



- **SONG** Generally silent. On breeding grounds, variety of guttural quacks and croaks, and a long drawn-out *ah-hah-awee*.
- **BEHAVIOR** Migrates in flocks, unlike other loons. Feeds primarily on fish but takes some crustaceans and mollusks. Nests on freshwater lakes and islands from tundra to boreal forests.
- **BREEDING** Solitary. Monogamous.
- **NESTING** Incubation 23–25 days by both sexes, but female does more. Young leave nest shortly after hatching. First flight at 60–65 days. 1 brood per year.
- **POPULATION** Common to fairly common on tundra breeding grounds. During winter, uncommon on the West Coast, casual on the East Coast, and rare inland. Stable.

Flight Pattern

Direct flight with rapid wing beats.

Nest Identification

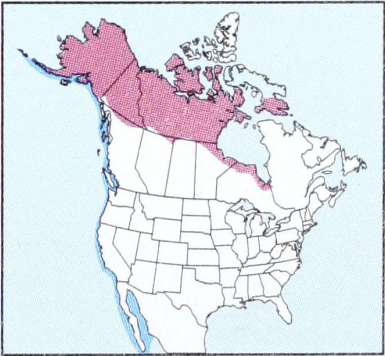
Shape Location

• **CONSERVATION**
Affected by encroachment of humans on breeding grounds. Vulnerable to the pollution of its wintering areas, including oil spills. Also vulnerable to drowning in gill nets.

Similar Birds

ARCTIC LOON
More white on flanks • breeding adults have dark chin • in winter lacks chin strap. • in the West only.

RED-THROATED LOON
Breeding adults have red foreneck; lacks large white spots on back; bill is upturned.



Heap of vegetation pulled up around nest • edge of water on ground • built by both sexes • 1–3 brownish eggs with blackish brown spots.

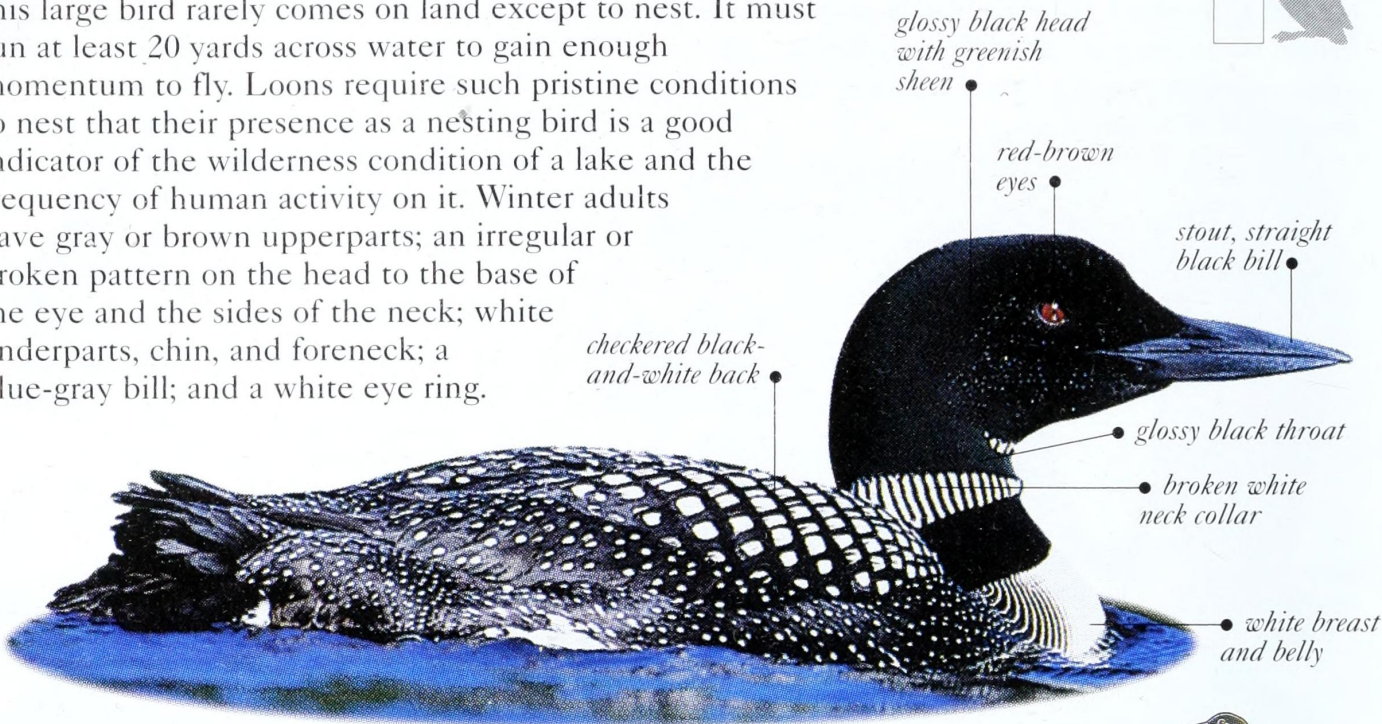
Plumage Sexes similar	Habitat	Migration Migratory	Weight 3.7 pounds
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DATE _____ TIME _____ LOCATION _____

Family GAVIIDAE	Species <i>Gavia immer</i>	Length 28–36 inches	Wingspan 50–58 inches
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COMMON LOON

Frequenting quiet lakes and usually sleeping on the water, this large bird rarely comes on land except to nest. It must run at least 20 yards across water to gain enough momentum to fly. Loons require such pristine conditions to nest that their presence as a nesting bird is a good indicator of the wilderness condition of a lake and the frequency of human activity on it. Winter adults have gray or brown upperparts; an irregular or broken pattern on the head to the base of the eye and the sides of the neck; white underparts, chin, and foreneck; a blue-gray bill; and a white eye ring.



- **SONG** Usually silent away from breeding areas. Different calls on breeding grounds: tremolo or “loon’s laughter”; yodel, sounding like *yodel-ha-oo-oo*; wail; and talking *kʷuk*.
- **BEHAVIOR** Rides low on water. Dives to 200 feet to catch fish. Eats freshwater and saltwater fish, crustaceans, amphipods, snails, leeches, frogs, salamanders, and aquatic insects. Eats larger prey on surface and smaller prey underwater. Can stay underwater up to 60 seconds. Loons migrate alone or in small groups.
- **BREEDING** Monogamous. Solitary nester on islands, always within a few feet of water. May use same nest year after year.
- **NESTING** Incubation 26–31 days by both sexes, mostly by female. Precocial young leave nest soon after hatching; fed and raised by both sexes. First flight at 70–80 days. 1 brood per year.
- **POPULATION** Fairly common. Decrease in some breeding areas in southern parts of range.
- **CONSERVATION** Prone to environmental loss due to human disturbance and reduced food supply resulting from acid rain. Some abandon nests due to human activity. Some breeding grounds protected by volunteers.



WINTER PLUMAGE

Similar Birds



YELLOW-BILLED LOON
Pale yellow bill in all plumages, with dusky base in winter; bill is larger and culmen is less curved • in winter has paler head and neck and brown patch over ear.

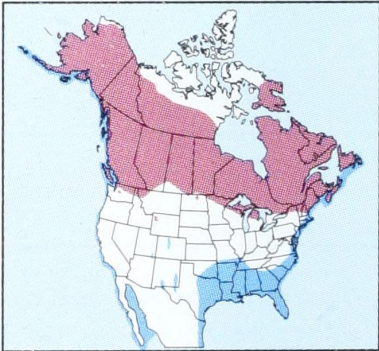
Flight Pattern

Rapid direct flight with strong wing beats. Head, neck, and legs extended and drooping slightly below midline of body give hunchbacked appearance.

Nest Identification

Shape Location

disturbance and reduced food supply resulting from acid rain. Some abandon nests due to human activity. Some breeding grounds protected by volunteers.



Bed of stems, grasses, and twigs • floating in bog; or on ground, hidden in crevices or muskrat houses • built by both sexes • 1–3 olive-green to dark brown eggs usually scattered with dark brown spots; subelliptical to oval, 3.5 x 2.2 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 9.1 pounds
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DATE _____ TIME _____ LOCATION _____

Family GAVIIDAE

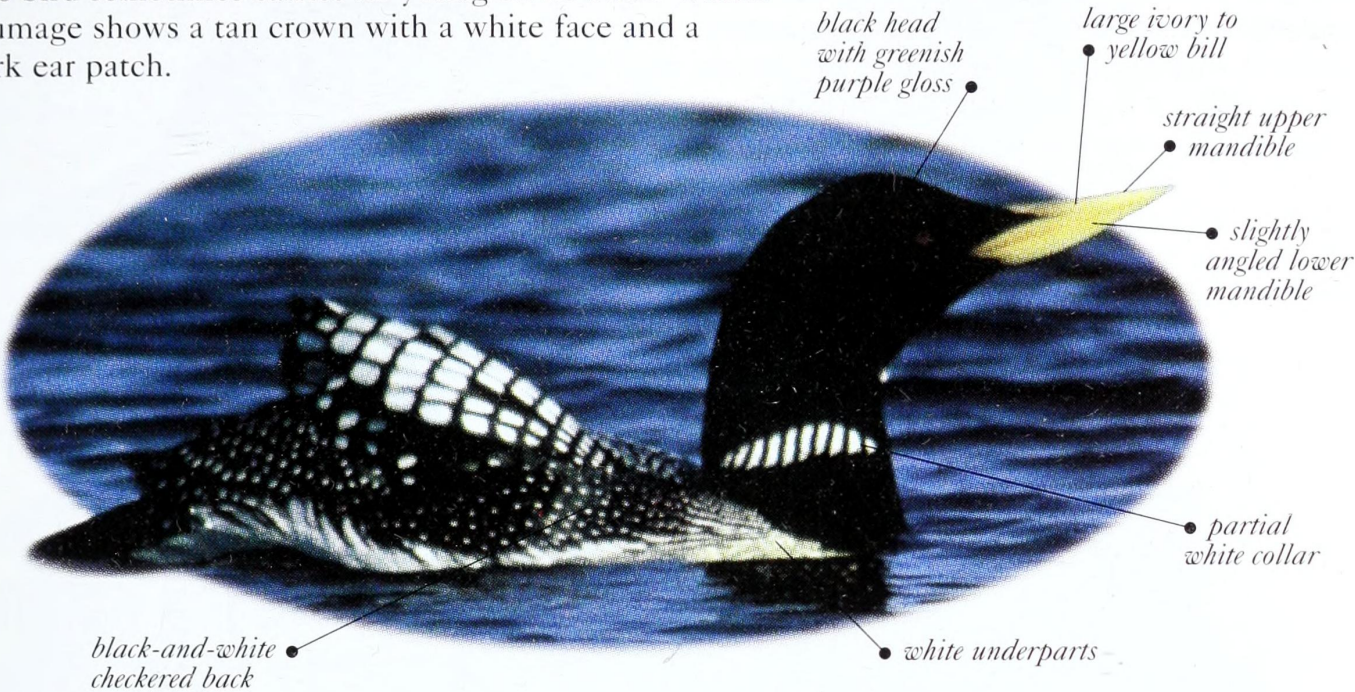
Species *Gavia adamsii*

Length 30–36 inches

Wingspan 54–60 inches

YELLOW-BILLED LOON

Once considered a weather prophet in Eskimo folklore, this loon is the largest of its species and has the northernmost range of any loon. Swimming with its head tilted slightly upward, this bird sometimes carries its young on its back. Winter plumage shows a tan crown with a white face and a dark ear patch.



The bill is pale ivory to straw-yellow in any plumage (with a dusky base in winter) and is straight above with an upward-angled lower mandible, giving the bill an upturned appearance.

• **SONG** Generally silent off breeding grounds. Similar to Common Loon, but laughter call is harsher. Also gives yodel, wail, and talking calls. In flight, makes *ha-ha-ha-ha-ha-ha-ha*.

• **BEHAVIOR** Almost never comes on land except to nest. Swims low in water with bill tilted slightly upward. Dives for small fish and crustaceans. Uses feet to propel underwater. Solitary or in pairs or family groups; almost never flocks. Breeds on tundra lakes and rivers; winters on saltwater coasts.

• **BREEDING** Monogamous. Solitary nester.

• **NESTING** Incubation 27–30 days by both sexes. Young stay in nest 1–2 days. Fed by both sexes. 1 brood per year.

Flight Pattern



Fast direct flight on strong deep wing beats with head, neck, and feet extended beyond body.

Nest Identification

Shape  Location 

• **POPULATION** Uncommon to rare south of Canada on West Coast in winter. Rare, casual, or accidental elsewhere in winter.

• **CONSERVATION** Oil spills and pollution detrimental to Arctic population.

Twigs, grasses, and mud; sometimes no material used • generally covered by mounded vegetation • small hummocks on water • 1–2 olive or brown eggs with dark brown spots; subelliptical but varies, 3.5 x 2.2 inches.

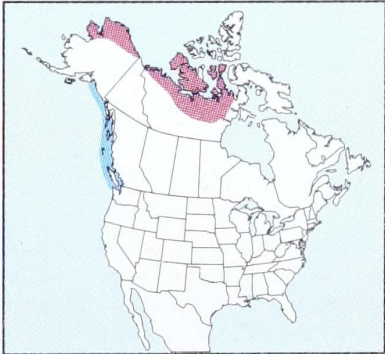


WINTER PLUMAGE

Similar Birds



COMMON LOON
In summer has black bill • in winter has dark upper edge on bill and darker head and face
• holds bill parallel to water when swimming.



Family PODICIPEDIDAE	Species <i>Tachybaptus dominicus</i>	Length 9–10 inches	Wingspan 20 inches
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LEAST GREBE

As its name suggests, this is the smallest of the North American grebes. It also has the most restricted range, barely crossing the southern border from Mexico. It may hide among tall vegetation in shallow, warm ponds, sloughs, and ditches in which it forages and nests. Apart from its size, it can be distinguished from other grebes by its golden eyes and short dark bill. In winter the sides of the head are brown rather than gray, the back and bill are lighter in color, and there is less black on the back of the head and neck.



- **SONG** Bold resonating trumpetlike note.
- **BEHAVIOR** Feeds primarily on aquatic insects. Like all other grebes, eats its own feathers, which may form a ball in the stomach. The purpose of this unusual behavior is unknown, but it may protect the gastrointestinal track from the sharp bones of the fish they ingest.
- **BREEDING** Monogamous. Occasionally form loose colonies.
- **NESTING** Incubation 21 days by both sexes. Precocial young stay in nest 14 days. Carried by parents for 3–4 days. Fed by both sexes. 2–3 broods per year, with more in the Tropics.

Flight Pattern

Direct flight with rapid wing beats.

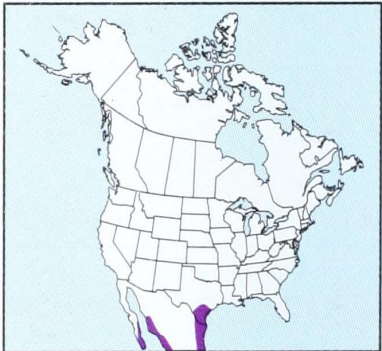
Nest Identification

Shape Location

- **POPULATION** Common.
- **CONSERVATION** Readiness to use newly created bodies of water may be employed as a means of increasing populations.

Similar Birds

PIED-BILLED GREBE
Larger; thicker light-colored bill; eye ring and dark (not golden) eye.



Platform of decaying vegetation • either floating or anchored by aquatic plants in middle of secluded pond • built by both sexes • 2–7 whitish to very pale blue-green eggs that become nest stained; long pyriform, 1.3 inches long.

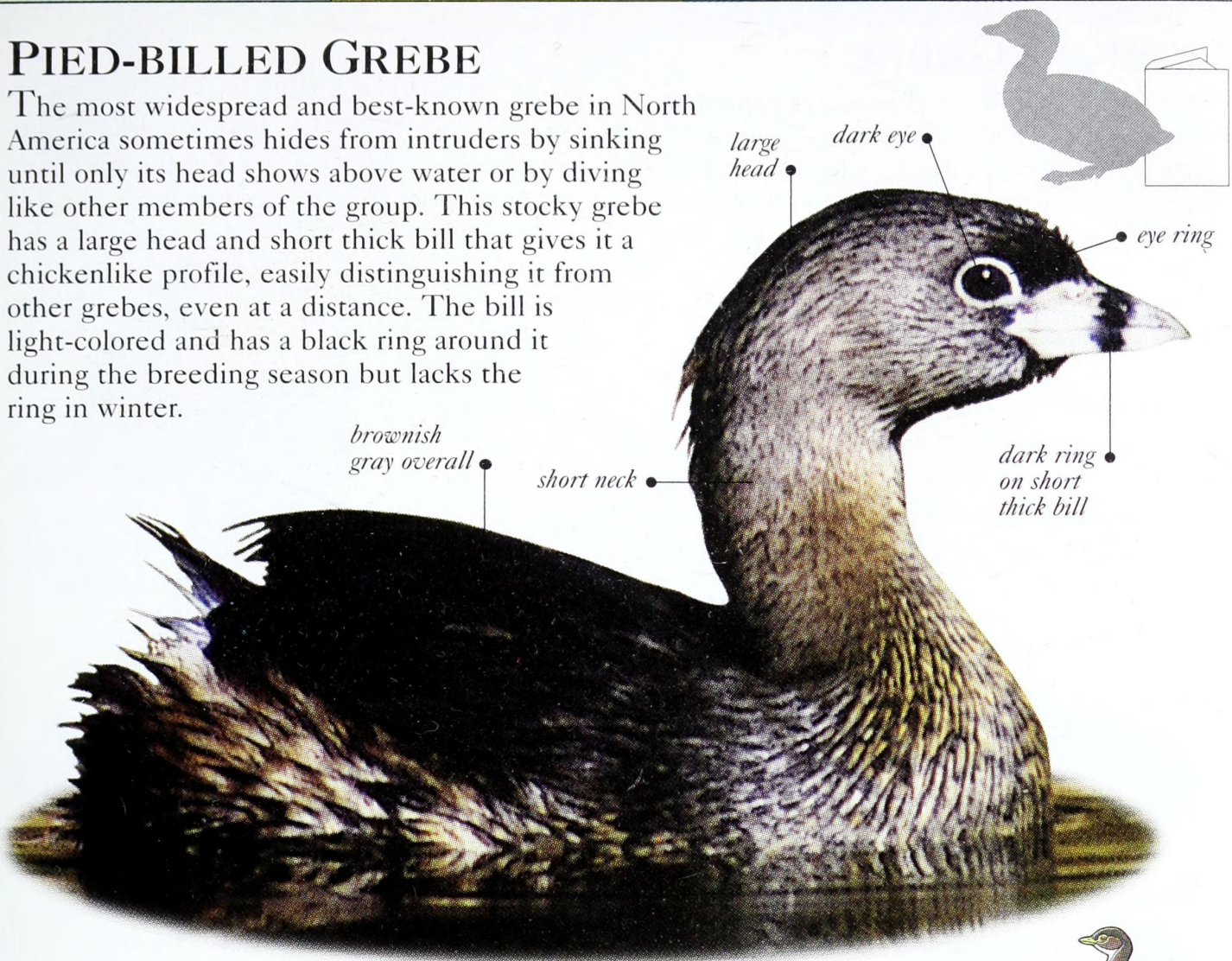
Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 4.5 ounces
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DATE _____ TIME _____ LOCATION _____

Family PODICIPEDIDAE	Species <i>Podilymbus podiceps</i>	Length 12–15 inches	Wingspan 22.5 inches
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PIED-BILLED GREBE

The most widespread and best-known grebe in North America sometimes hides from intruders by sinking until only its head shows above water or by diving like other members of the group. This stocky grebe has a large head and short thick bill that gives it a chickenlike profile, easily distinguishing it from other grebes, even at a distance. The bill is light-colored and has a black ring around it during the breeding season but lacks the ring in winter.



- **SONG** Loud cuckoolike call, *cuck, cuck, cuck, cow-cow-cow, cow-ah-cow-ah.*
- **BEHAVIOR** Forages by diving from the surface and swimming underwater, propelled by its feet. Feeds some on vegetation, but about half of the diet is made up of aquatic insects with the remainder split almost equally between small fish and crustaceans.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 23–27 days by both sexes, but female does more. Precocial young move from nest to adult’s back less than an hour after hatching. First flight at 35–37 days. Young fed by both sexes. 1–2 broods per year.

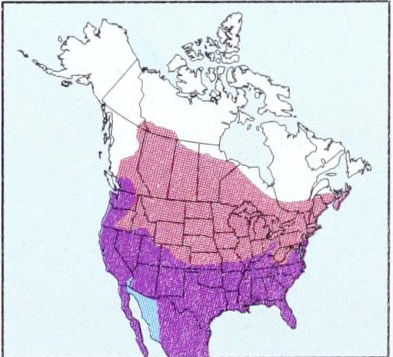


Similar Birds	
	LEAST GREBE Smaller with golden (not dark) eye; more slender dark bill; much more restricted North American range.

Flight Pattern	
	
Direct flight with rapid wing beats.	

Nest Identification	
Shape 	Location 

- than an hour after hatching. First flight at 35–37 days. Young fed by both sexes. 1–2 broods per year.
- **POPULATION** Very common in range.
 - **CONSERVATION** May be declining due to habitat loss.



Platform of decaying vegetation • inconspicuously anchored to vegetation in open water among reeds or rushes • built by both sexes • 2–10 pale bluish white or nest-stained eggs; elliptical to subelliptical, 1.7 inches long.

Plumage Sexes similar	Habitat  	Migration Some migrate	Weight 15.6 ounces
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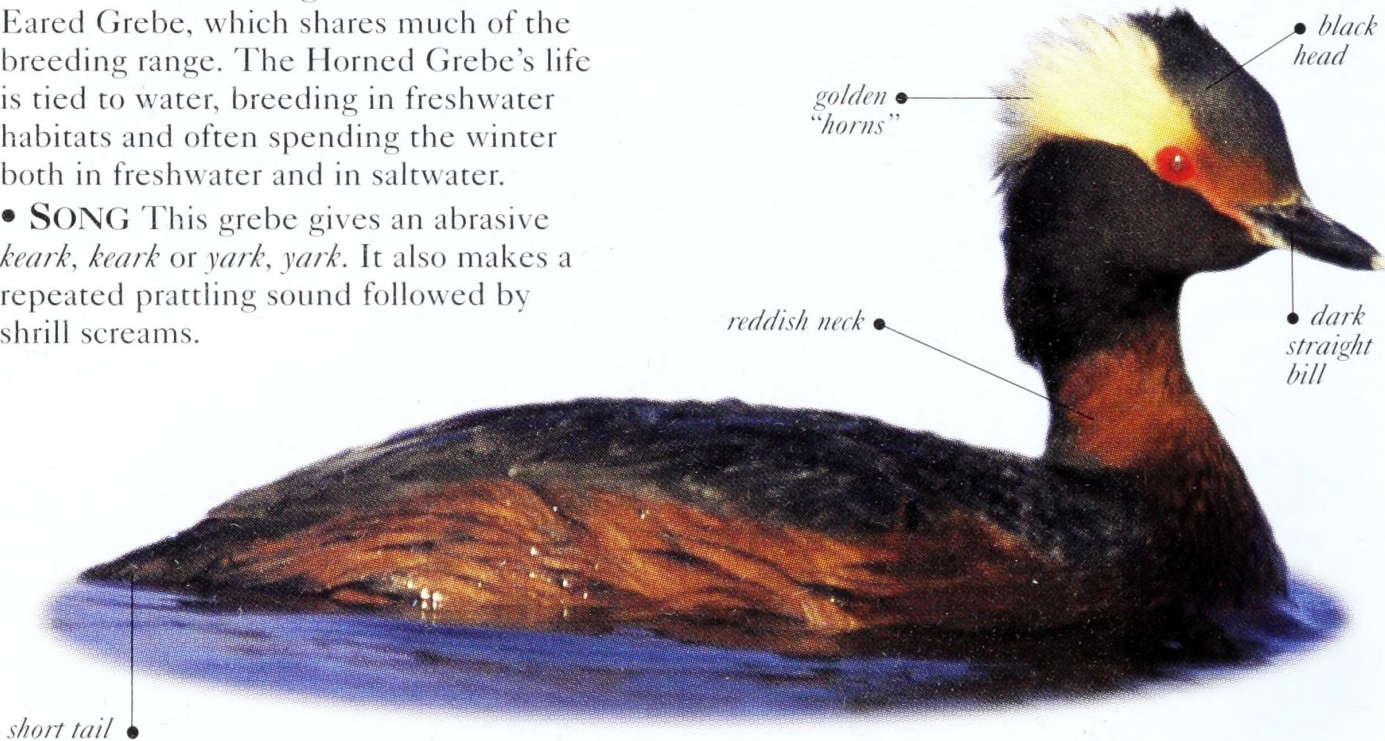
DATE _____ TIME _____ LOCATION _____

Family POPICIPEDIDAE	Species <i>Podiceps auritus</i>	Length 12–15 inches	Wingspan 24 inches
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HORNED GREBE

The “horns” for which this bird is named are actually tufts of golden feathers above and behind the eyes, that are present only during the bird’s breeding season. In summer the reddish neck of the Horned Grebe distinguishes it from the Eared Grebe, which shares much of the breeding range. The Horned Grebe’s life is tied to water, breeding in freshwater habitats and often spending the winter both in freshwater and in saltwater.

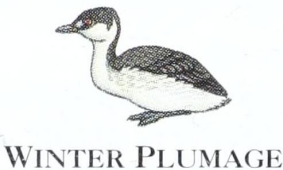
• **SONG** This grebe gives an abrasive *keark, keark* or *yark, yark*. It also makes a repeated prattling sound followed by shrill screams.



• **BEHAVIOR** The Horned Grebe eats as its primary diet mostly fish and some crustaceans as well as aquatic insects. Tamer than other grebes, it often allows a close approach by humans. Its nests are often built so that they are concealed poorly or not at all.

• **BREEDING** Monogamous. Most often a solitary nester; sometimes in loose colonies of 4–6 pairs.

• **NESTING** Incubation 22–25 days by both sexes. Young fed by both sexes. First flight in 45–60 days. 1 brood per year, sometimes 2.



WINTER PLUMAGE

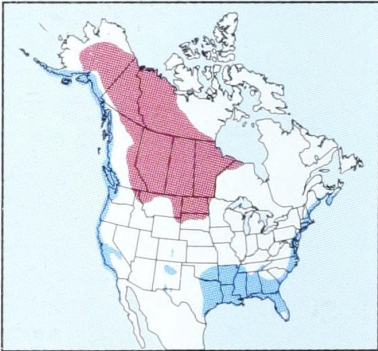
Similar Birds



EARED GREBE
More triangular head; has black neck in summer • dusky neck and black cheeks in winter.



WESTERN GREBE
CLARK’S GREBE
Black above and white below; much larger; much longer necks and bills.



Flight Pattern



Direct flight with rapid wing beats.

Nest Identification



• **POPULATION** Common.
• **CONSERVATION** Declining apparently due to oil spills and habitat loss.

Floating heap of wet plant material, including underwater plants, rotting vegetation, rubbish, and mud • often anchored to vegetation • 3–7 whitish to very pale green eggs, usually nest-stained; 1.7 inches long.

Plumage Sexes similar	Habitat   	Migration Migratory	Weight 1 pound
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DATE _____ TIME _____ LOCATION _____

Family PODICIPEDIDAE	Species <i>Podiceps grisegena</i>	Length 17–21 inches	Wingspan 30–32 inches
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RED-NECKED GREBE

Slightly smaller than the Western and Clark’s grebes, this bird’s neck is much thicker in appearance. In flight it is the only grebe that shows white leading and trailing edges on the inner wing. Although it requires large bodies of freshwater for breeding, most of the population spends the winter months on saltwater.

• **SONG** On breeding ground, utters drawling cries and *crick-crick*; during courtship both sexes make loonlike calls of *ah-ooo*, *ah-ooo*, *ah-ooo*, *ah-ah-ah-ah-ah*.

• **BEHAVIOR** Feeds primarily on small fish and crustaceans that it gathers in dives to 25–30 feet. One of



the shyest grebes around the nest, it often slips away in the presence of intruders.

- **BREEDING** Monogamous. Usually a solitary nester but sometimes breeds in small colonies.
- **NESTING** Incubation 20–23 days by both sexes. Young fed by both sexes. First flight at 49–70 days. 1 brood per year.
- **POPULATION** Fairly common in suitable habitat in breeding range and along both North Atlantic and North Pacific coasts in winter. Casual to rare inland from US states bordering Canada south to the Gulf Coast in winter.
- **CONSERVATION** Declining overall due to pesticides, oil spills

in marine environments, and habitat loss. Recent declines due to egg inviability, shell thinning from pesticides and PCBs, and increased egg predation by raccoons.



JUVENILE

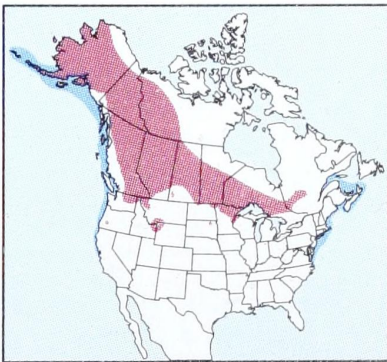


WINTER PLUMAGE

Similar Birds



WESTERN GREBE
CLARK’S GREBE
Similar in size; long necks always white below; pale to whitish sides; red eyes, not dark as in Red-necked Grebe.



Flight Pattern

Direct flight with rapid wing beats.

Nest Identification

Shape	Location
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Plant material, fresh and decaying reeds • floating or anchored in shallow water • built by both sexes • 2–6 bluish white or very pale buff eggs that become nest-stained brown, 2.1 inches long.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 2.3 pounds
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DATE _____ TIME _____ LOCATION _____

Family PODICIPEDIDAE	Species <i>Podiceps nigricollis</i>	Length 12–13 inches	Wingspan 22.5 inches
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EARED GREBE

The “ear” for which this bird is named is a wide golden tuft of feathers behind the eyes, present only in breeding plumage. It has a more triangular-shaped head than other grebes and is the only one that has a black neck during breeding season. The neck remains dusky gray in winter – a good field mark. The slender, dark bill appears slightly upturned.



SONG Utters soft *poo-eee-chk* in courtship. Also has grating shrieks.

• **BEHAVIOR** Pairs and family groups during the nesting season but often nests in dense colonies of up to several hundred pairs. Breeding pairs have several mutual displays, including an upright “penguin dance” side-by-side on the water. Forages by diving and swimming underwater for aquatic insects, which make up most of its summer diet. Many winter in marine environments, where shrimplike crustaceans become their principal food. A gregarious bird that often gathers in large flocks in winter. Tends to ride higher on the water than the somewhat similar Horned Grebe.

• **BREEDING** Monogamous. Colonial.

• **NESTING** Incubation 20–22 days by both sexes. Young leave nest after last egg hatches. Fed by both sexes. Become

independent 21 days after hatching. 1 brood per year, sometimes 2.

• **POPULATION** Common. Becoming increasingly more common in the East in winter. Numbers concentrated on lakes in Great Basin during migration.

Flight Pattern

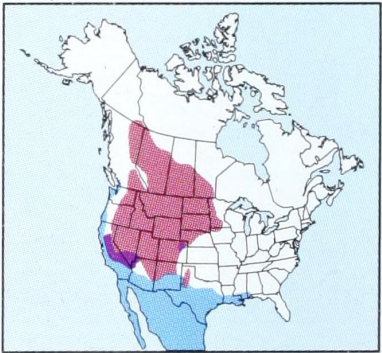
Direct flight with rapid wing beats.

Nest Identification
Shape  Location 

Fresh and decayed vegetation • floating but anchored by standing vegetation • built by both sexes • 1–9 whitish or bluish white eggs that become nest-stained brown, 1.7 inches long.



Similar Birds	
	HORNED GREBE Reddish neck in summer • white in winter plumage; white cheeks (not blackish like Eared Grebe) in winter • gold feathers in breeding plumage are restricted to “horns” above and behind the eye, not over the ears.



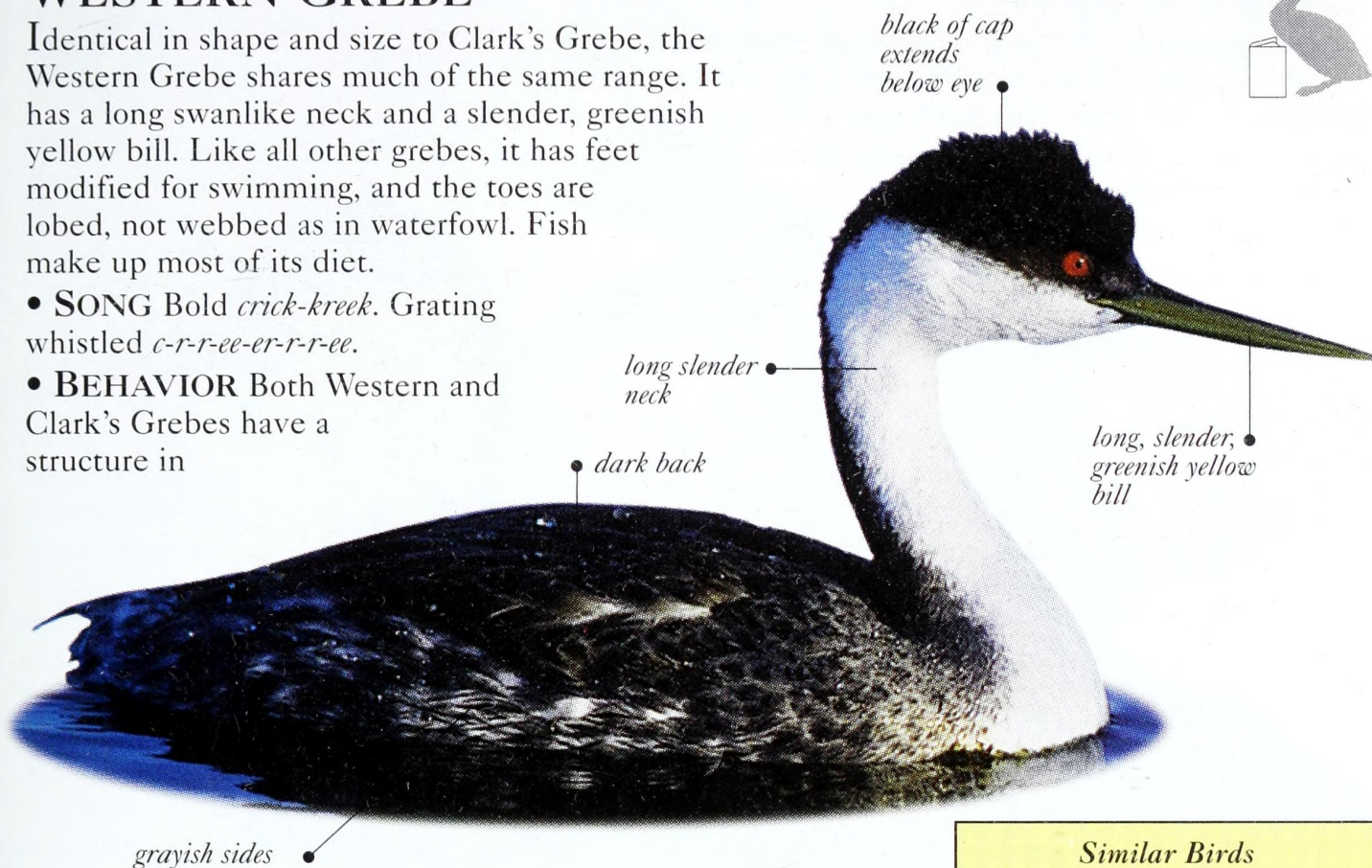
Plumage Sexes similar	Habitat 	Migration Migratory	Weight 10.3 ounces
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DATE _____ TIME _____ LOCATION _____

WESTERN GREBE

Identical in shape and size to Clark's Grebe, the Western Grebe shares much of the same range. It has a long swanlike neck and a slender, greenish yellow bill. Like all other grebes, it has feet modified for swimming, and the toes are lobed, not webbed as in waterfowl. Fish make up most of its diet.

- **SONG** Bold *crick-kreek*. Grating whistled *c-r-r-ee-er-r-r-ee*.
- **BEHAVIOR** Both Western and Clark's Grebes have a structure in



the neck that allows rapid spearlike thrusting of the bill. Like all other grebes, it practices the peculiar behavior of carrying newly hatched young snuggled in the feathers of its back as it swims, and even as it dives if disturbed by an intruder.

- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 23–24 days by both sexes. Young climb on parents' backs within minutes of birth and leave nest soon. Young fed by both sexes. First flight at 63–70 days. 1 brood per year.
- **POPULATION** Fairly common to common. Casual in East during fall migration and winter.



WINTER PLUMAGE

Similar Birds

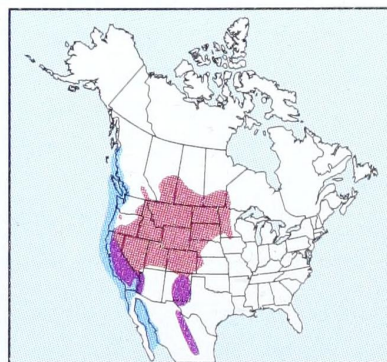


CLARK'S GREBE
Almost identical in all plumages but paler with white face extending above eye; orange (not yellow-green) bill

- more similar head pattern in winter, when Western may have whiter lore and Clark's may have darker lore.



HORNED GREBE
In winter, plumage also black and white but much smaller; shorter neck; short, dark bill.



Flight Pattern



Direct flight with rapid wing beats.

Nest Identification

Shape  Location 

- **CONSERVATION** From 1890s to 1906, thousands shot for feathers to make hats, coats, and capes. Oil spills and gill nets currently major causes of mortality. Vulnerable also to loss of habitat.

Plant material • floating or anchored to standing vegetation in shallow water • built by both sexes • 1–7 pale bluish white eggs that become nest-stained brown; subelliptical to long elliptical, some tending toward oval, 2.3 inches long.

Plumage	Sexes similar	Habitat   	Migration	Some migrate	Weight	3.3 pounds
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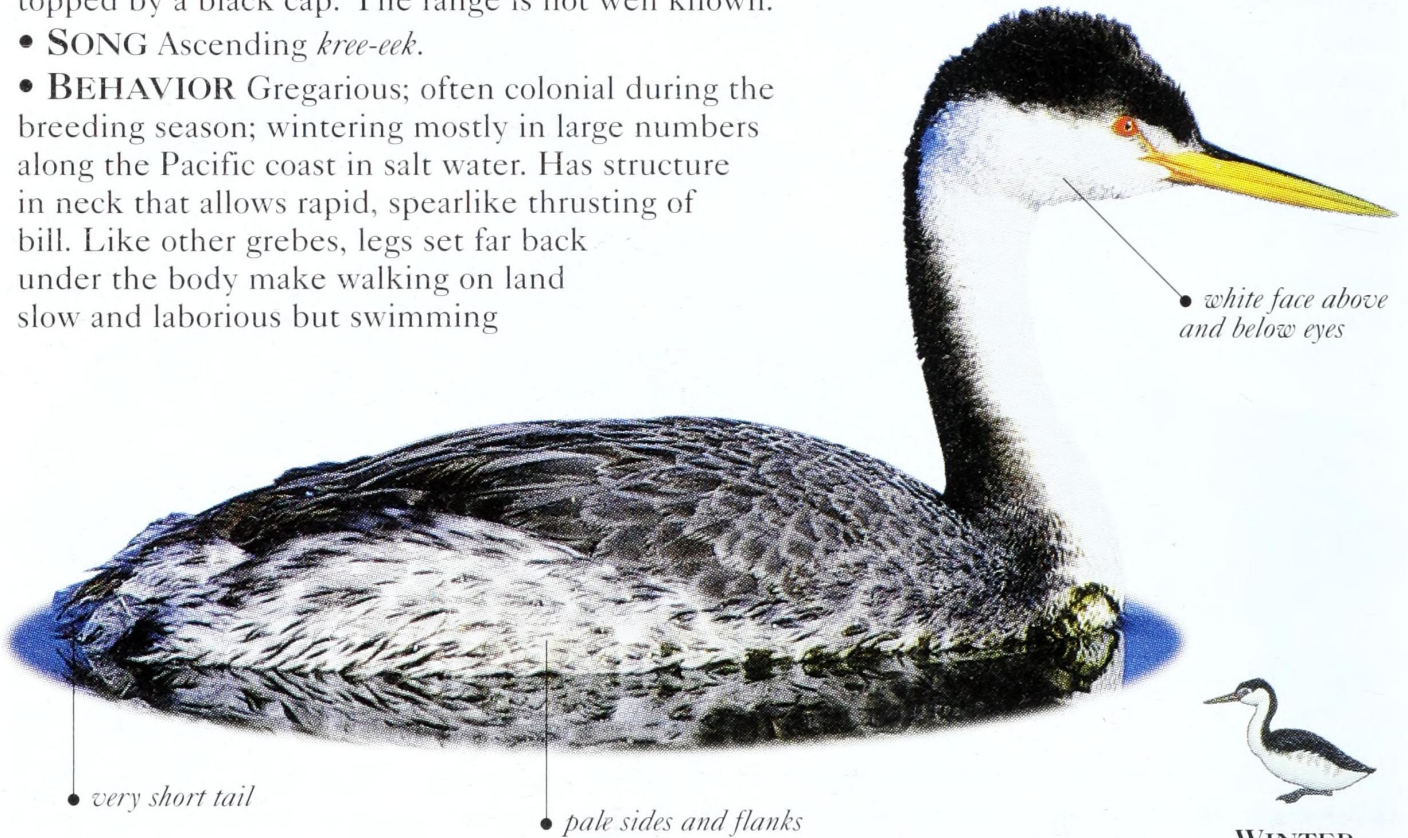
DATE	TIME	LOCATION
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Family PODICIPEDIDAE	Species <i>Aechmophorus clarkii</i>	Length 26 inches	Wingspan 30–40 inches
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CLARK’S GREBE

Until recently this bird was considered a pale morph of the Western Grebe, which it closely resembles in size, shape, behavior, habitat selection, and range. It differs in bill color and by having a white face above and below the eyes, topped by a black cap. The range is not well known.

- **SONG** Ascending *kree-eeek*.
- **BEHAVIOR** Gregarious; often colonial during the breeding season; wintering mostly in large numbers along the Pacific coast in salt water. Has structure in neck that allows rapid, spearlike thrusting of bill. Like other grebes, legs set far back under the body make walking on land slow and laborious but swimming



WINTER PLUMAGE

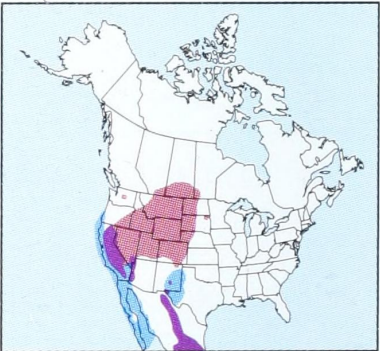
and diving easy. Courtship behavior much like Western Grebe, with water “dances” including pairs running across the surface with bodies vertical and necks thrust forward.

- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 23–24 days by both sexes. Precocial young climb onto parents’ backs within minutes of birth. First flight at 63–77 days. Young fed by both sexes. 1 brood per year.
- **POPULATION** Common to fairly common in number; accidental in the East.

Similar Birds

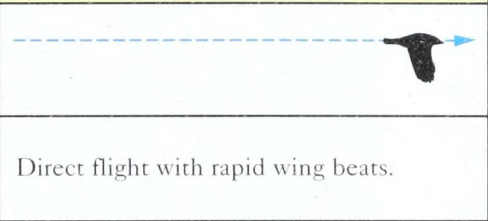


WESTERN GREBE
Only other large, black-and-white grebe with a long neck; yellow-green bill instead of orange; black of cap extends down through eye.

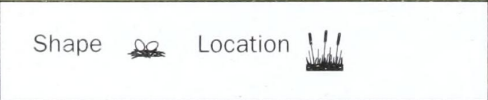


- **CONSERVATION** Plume hunters once devastated populations. Oil spills and accidental drowning in gill nets are current major causes of mortality; also vulnerable to loss of habitat.

Flight Pattern



Nest Identification



Made of floating detritus • in shallow water • built by both sexes • 1–6 bluish white eggs that become nest-stained brown, 2.3 inches long.

Plumage Sexes similar	Habitat	Migration Some migrate	Weight 3.3 pounds
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DATE _____ TIME _____ LOCATION _____

Family DIOMEDEIDAE	Species <i>Thalassarche chlororhynchos</i>	Length 28–32 inches	Wingspan 70–81 inches
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YELLOW-NOSED ALBATROSS

This large rather slender and lightly built seabird is one of two species of albatross that make their homes in the south Atlantic but also make rare to casual appearances in the west Atlantic off our shores. Generally found well out to sea, this bird has sometimes been seen from shore and even inland on rare occasions. It can be identified by its light gray head, black bill (the yellow patch of color on the upper mandible can only be seen on adults at close range), and underwings, which are white underneath with dark tips and narrow dark margins on front and back. Juveniles have all-black bills, and the dark markings on their underwings are wider.

- **SONG** Generally silent at sea. Breeding call is a high-pitched sound and continual clattering and braying.
- **BEHAVIOR** Often in small flocks where birds are more abundant. Less drawn to ships than the Black-browed Albatross. Feeds primarily at night on the ocean's surface on squid, cuttlefish, and other marine animals. Land and water takeoffs require it to run across the surface into the wind while flapping its wings; may leap into air from cliffs. After breeding season adults and juveniles disperse widely in southern Atlantic and Indian Oceans.
- **BREEDING** Solitary to colonial.
- **NESTING** Incubation 78 days. Semialtricial young remain in nest 130 days. 1 brood per year.
- **POPULATION** A rare wanderer to the Gulf and Atlantic Coasts from Florida to the Maritimes.

Flight Pattern

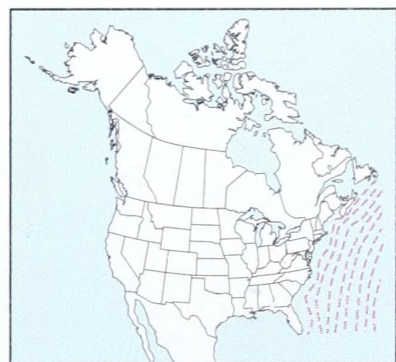
Soars effortlessly when winds permit; may soar and glide for hours using little energy and few adjustments to wing position.

Nest Identification

Shape

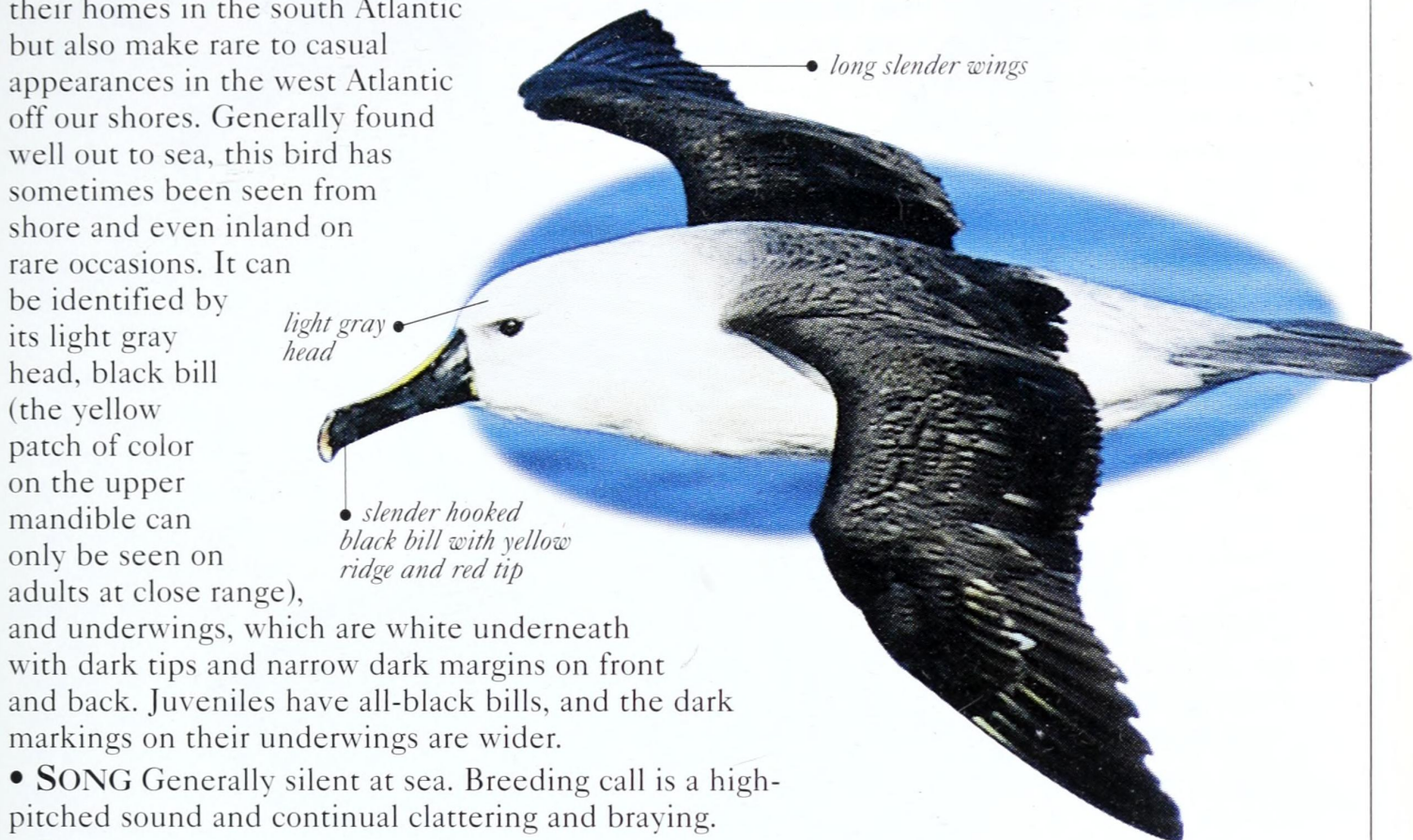
Location

• **CONSERVATION** Many albatrosses were killed for feathers and wings in late 19th and early 20th centuries; most of this took place on remote islands when birds gathered for nesting. Many populations still have not recovered in number.



Similar Birds

BLACK-BROWED ALBATROSS
 Larger; bulkier; yellow beak; longer dark eye line; broader dark anterior margin to underwing.



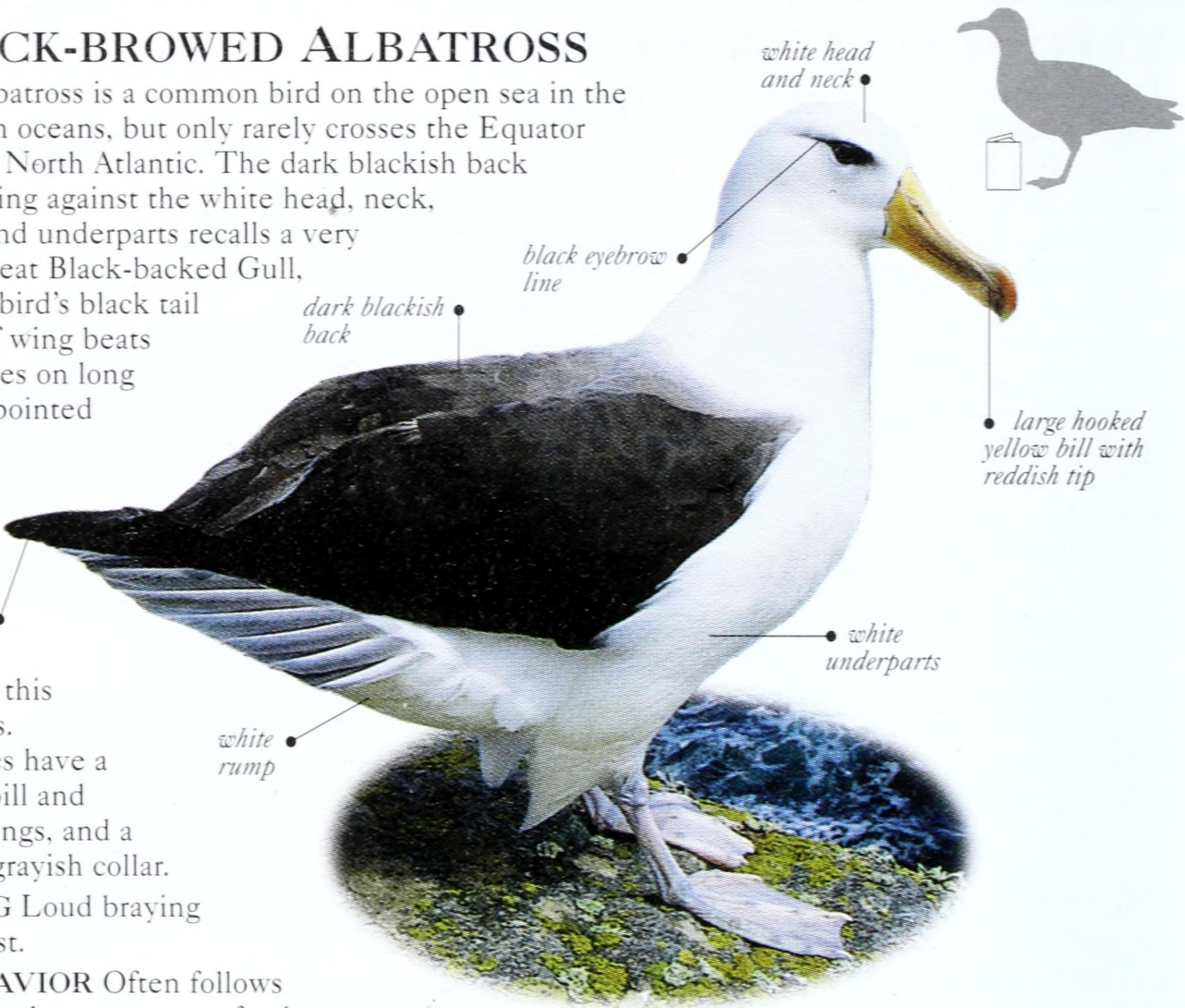
Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 5.4 pounds
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DATE _____ TIME _____ LOCATION _____

Family	DIOMEDEIDAE	Species	<i>Thalassarche melanophris</i>	Length	32–37 inches	Wingspan	88–95 inches
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BLACK-BROWED ALBATROSS

This albatross is a common bird on the open sea in the southern oceans, but only rarely crosses the Equator into the North Atlantic. The dark blackish back contrasting against the white head, neck, rump, and underparts recalls a very large Great Black-backed Gull, but the bird's black tail and stiff wing beats and glides on long narrow pointed wings



black tail quickly identify this albatross.

Juveniles have a darker bill and underwings, and a narrow grayish collar.

- **SONG** Loud braying from nest.
- **BEHAVIOR** Often follows ships. Settles on water to feed, making shallow dives from surface for food. Feeds on squid, cuttlefish, small fish, crustaceans, and garbage from ships. Like other albatrosses, it can spend extended periods at sea, where it drinks saltwater by removing excessive salts with salt glands in the tube nose. After breeding season adults and juveniles disperse widely in southern oceans primarily south of the Tropic of Capricorn.
- **BREEDING** Colonial.
- **NESTING** Incubation 64–79 days by both sexes.

Semialtricial young stay in nest 4–5 months. First flight as early as 116 days. 1 brood per year.

Flight Pattern



Soars effortlessly for long periods of time on stiff wings when there are winds; may circle, arc, and glide for long distances.

Nest Identification

Shape  Location 

- **POPULATION** Rare to casual in North American western Atlantic from North Carolina to Newfoundland. One of most abundant albatrosses in cold seas of the southern Atlantic.

Similar Birds

YELLOW-NOSED ALBATROSS
Black bill with yellow ridge on upper mandible; more extensive white on underwing with narrow dark borders; light gray head.



Mud and grass • grassy tufts on slopes or cliffs overlooking ocean • conical • 1 white egg with smattering of red spots at the base, 2.6 x 4 inches.

Plumage	Sexes similar	Habitat		Migration	Nonmigratory	Weight	Undetermined
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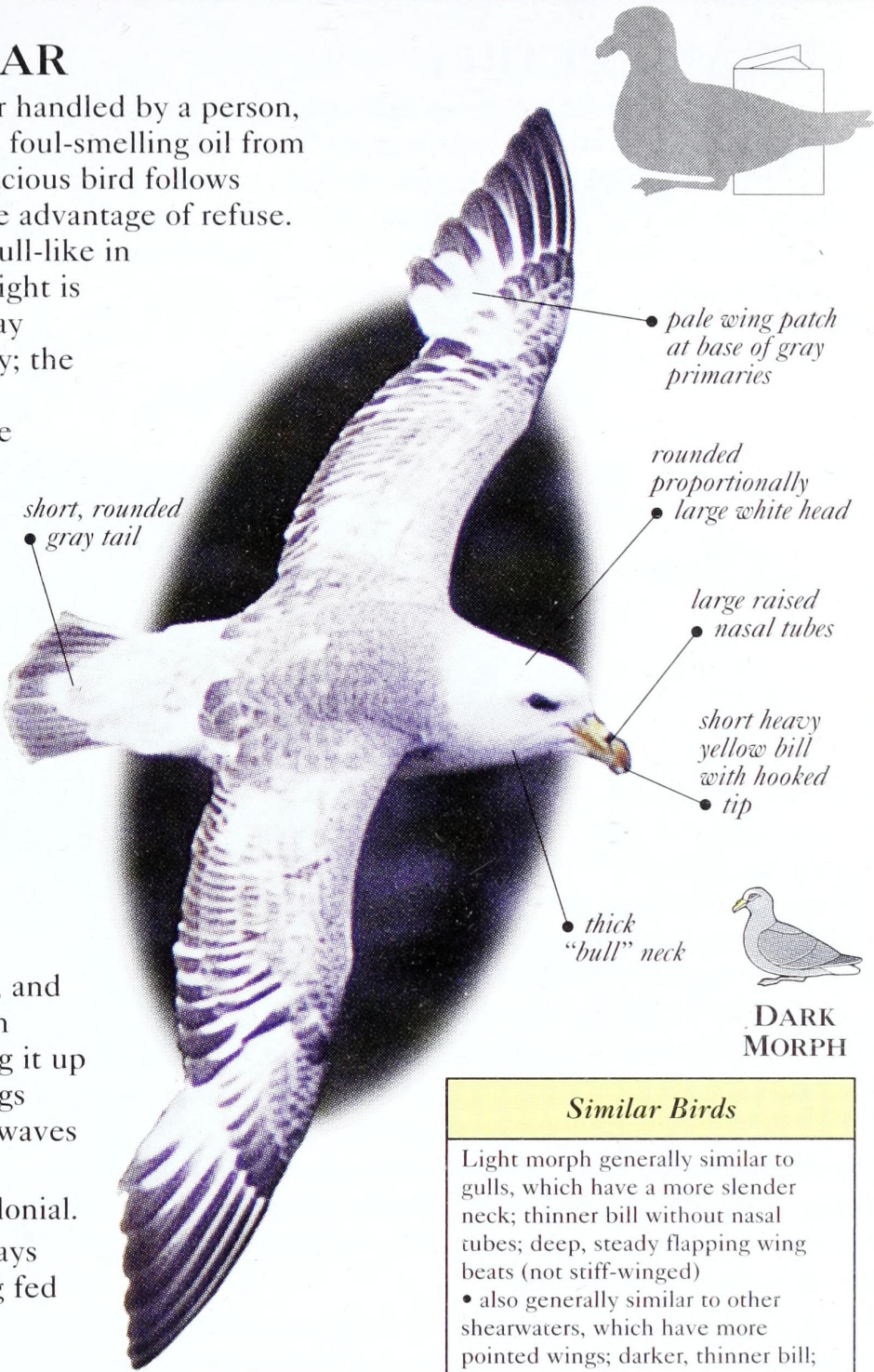
DATE _____ TIME _____ LOCATION _____

Family PROCELLARIIDAE	Species <i>Fulmarus glacialis</i>	Length 19 inches	Wingspan 42 inches
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NORTHERN FULMAR

When threatened by an enemy or handled by a person, the Northern Fulmar discharges a foul-smelling oil from its stomach by spitting. This audacious bird follows fishing boats, often closely, to take advantage of refuse. The light morph is superficially gull-like in appearance, but its stiff-winged flight is like a shearwater's. It is mostly gray above with a white chest and belly; the dark color morph is gray overall. Fulmars are rarely seen from shore away from the breeding colonies, except during storms.

- **SONG** When feeding, makes chucking and grunting noises. During breeding season makes variety of guttural calls.
- **BEHAVIOR** Gregarious. Highly pelagic; may not come ashore until 3–4 years old. Grabs food with beak from just below surface and eats on the water. Sometimes makes shallow dives, using wings and feet for propulsion. Eats variety of fish, crustaceans, squid, marine worms, and carrion. Feeds alone, in pairs, or in flocks. Drinks seawater by sucking it up dove-fashion. In flight carries wings stiffly and wheels up in arcs over waves by taking advantage of winds.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 52–53 days by both sexes. Semialtricial young fed by both sexes. First flight at 46–51 days. 1 brood per year.
- **POPULATION** Common; abundant in some places. In winter found at sea off both coasts.



DARK MORPH

Similar Birds

Light morph generally similar to gulls, which have a more slender neck; thinner bill without nasal tubes; deep, steady flapping wing beats (not stiff-winged)

- also generally similar to other shearwaters, which have more pointed wings; darker, thinner bill; most do not follow ships.

Flight Pattern



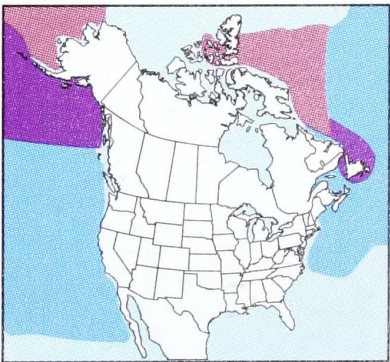
Flap and glide flight on bowed wings with bursts of stiff wing beats alternating with periods of effortless banking and gliding.

Nest Identification

Shape 

Location 

• **CONSERVATION** Population growth possibly supported by fishery wastes in North Sea. Humans, introduced predators, and avian predators take a toll, but humans are major predator for meat, eggs, and feathers.



Slight depression on ground • sometimes layered with pebbles • may be built by both sexes • 1 white or off-white egg, often nest-stained and occasionally marked with reddish brown; subelliptical, 2.9 inches long.

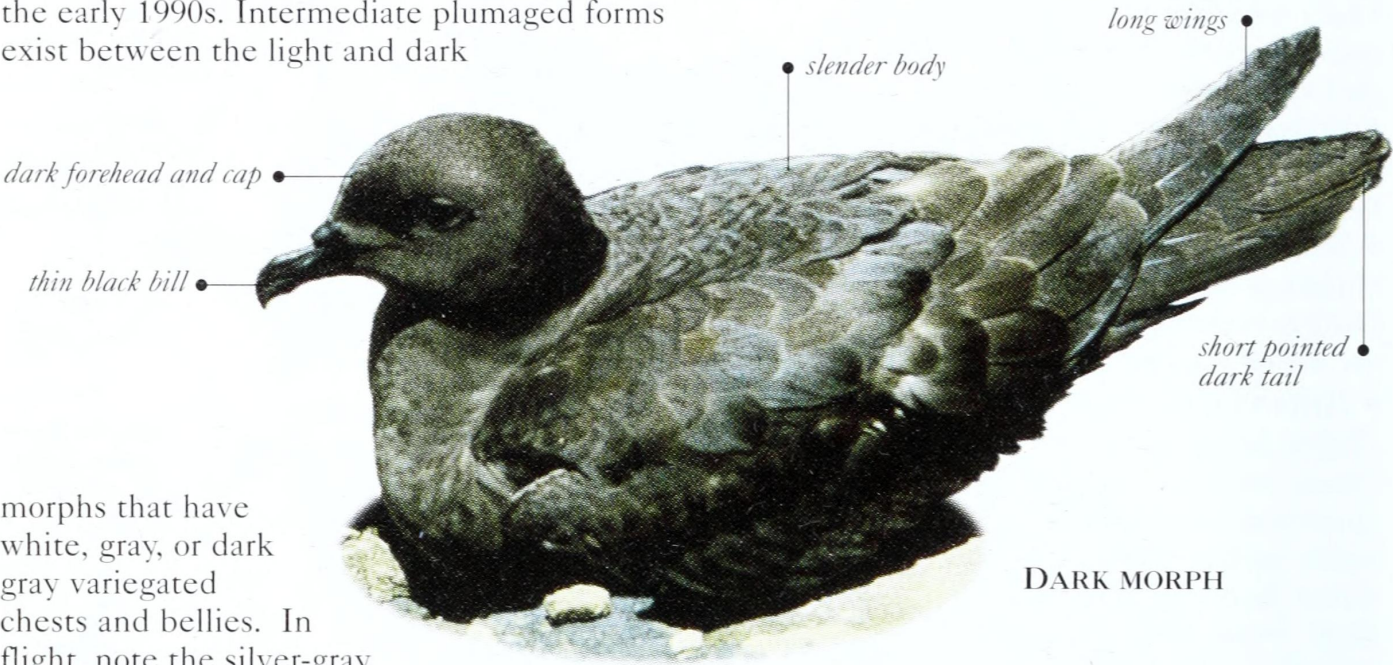
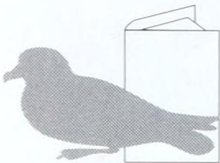
Plumage Sexes similar	Habitat 	Migration Migratory	Weight 21.5 ounces
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DATE _____ TIME _____ LOCATION _____

Family PROCELLARIIDAE	Species <i>Pterodroma arminjoniana</i>	Length 14–16 inches	Wingspan 38–40 inches
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HERALD PETREL

This tropical seabird has three different color morphs: light, intermediate, and dark. These seabirds prefer the waters below the Equator; but in August of 1933, a Herald Petrel was blown by a hurricane to upstate New York. First recorded off North Carolina in the late 1970s, this bird has been seen May through early September since the early 1990s. Intermediate plumaged forms exist between the light and dark



morphs that have white, gray, or dark gray variegated chests and bellies. In flight, note the silver-gray to white base on the underwing flight feathers of the dark morph, and the dark M across the upper wings of the light morph.

- **SONG** Several squeaky whistles, moaning notes. Also cooing and chatter resembling that of a tern.
- **BEHAVIOR** Wide ranging. Stays on open sea and offshore waters near nesting grounds. Eats mostly squid and crustaceans. Skims water, grabs prey with bill, and ingests while in flight.
- **BREEDING** Colonial.
- **NESTING** Breeding biology poorly known. Incubation estimated at 49–54 days by both sexes. Semialtricial young fed by both parents for 90–100 days then abandoned. Grown chick makes way to sea in next few days. 1 brood per year.

DARK MORPH



LIGHT MORPH

Similar Birds



SOOTY SHEARWATER
Light underwings; shorter tail; broader, more stout body; high forehead; very different flight pattern.

Flight Pattern

Several fluttery wing beats followed by a glide, and high erratic soaring arcs that become higher and more dashing as wind speeds increase.

Nest Identification

Shape

Location

- **POPULATION** Rare to uncommon. Rare but regular in late spring to late summer off coast of North Carolina.
- **CONSERVATION** Vulnerable to human intrusion and predators introduced on nesting grounds.



Bare soil in burrow on warm island • burrow excavated or cleaned out by both sexes • 1 white egg; oval, 2.4 inches long.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 5.7 ounces
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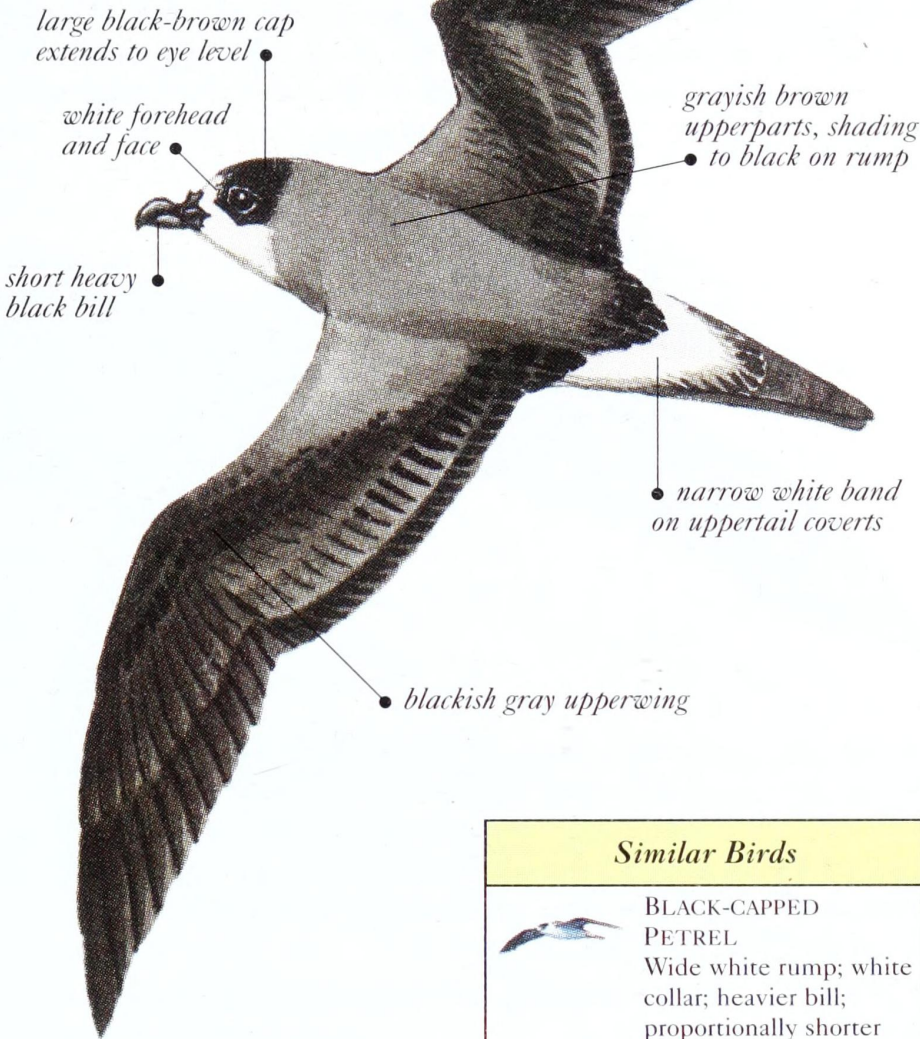
DATE _____ TIME _____ LOCATION _____

Family PROCELLARIIDAE	Species <i>Pterodroma cahow</i>	Length 15 inches	Wingspan 36 inches
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BERMUDA PETREL

For three hundred years this bird was believed to be extinct, but the Bermuda Petrel, also called the Cahow, was rediscovered in 1935. Today there are thought to be about two hundred birds, and its population is slowly increasing under rigorous protection on islets around Bermuda. It is occasionally spotted in the warm waters of the Gulf Stream off the coasts of North and South Carolina after breeding season. In flight it shows white underparts and white underwings with blackish margins and tips. Juveniles resemble adults.

- **SONG** Call is eerie *ca-how*, heard in the fall near the breeding colony.
- **BEHAVIOR** Little is known about the behavior and biology of this bird away from nesting colonies. Sightings off the Carolinas have been of solitary birds. Activities at nesting colonies are primarily nocturnal. Catches food in bill. Eats mostly fish and squid taken from water surface. Does not follow boats.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 51–54 days by both sexes. Semi-alcitricial young remain in nest 90–100 days, tended by both sexes. 1 brood per year.
- **POPULATION** Rare. Limited range is slowly increasing by use

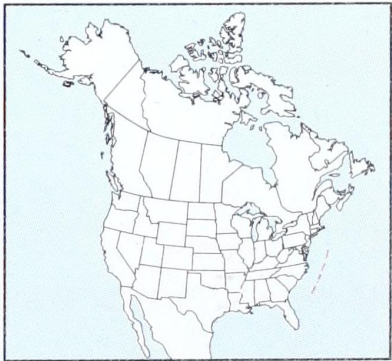


Similar Birds



BLACK-CAPPED PETREL
Wide white rump; white collar; heavier bill; proportionally shorter wings; paler underwings; brownish black extends to eye and nape; brownish black upperwing

- atypical individuals often lack white collar and/or rump.



Flight Pattern



Fluttery wing beats alternate with glides. High erratic soaring arcs become higher and more dashing as wind speeds increase.

Nest Identification

Shape  Location 

No nest material • in ridges of cliffs or in rock crevices, sometimes in burrow, but most in artificial tailored nest chamber • 1 white egg; oval, 2.4 inches long.

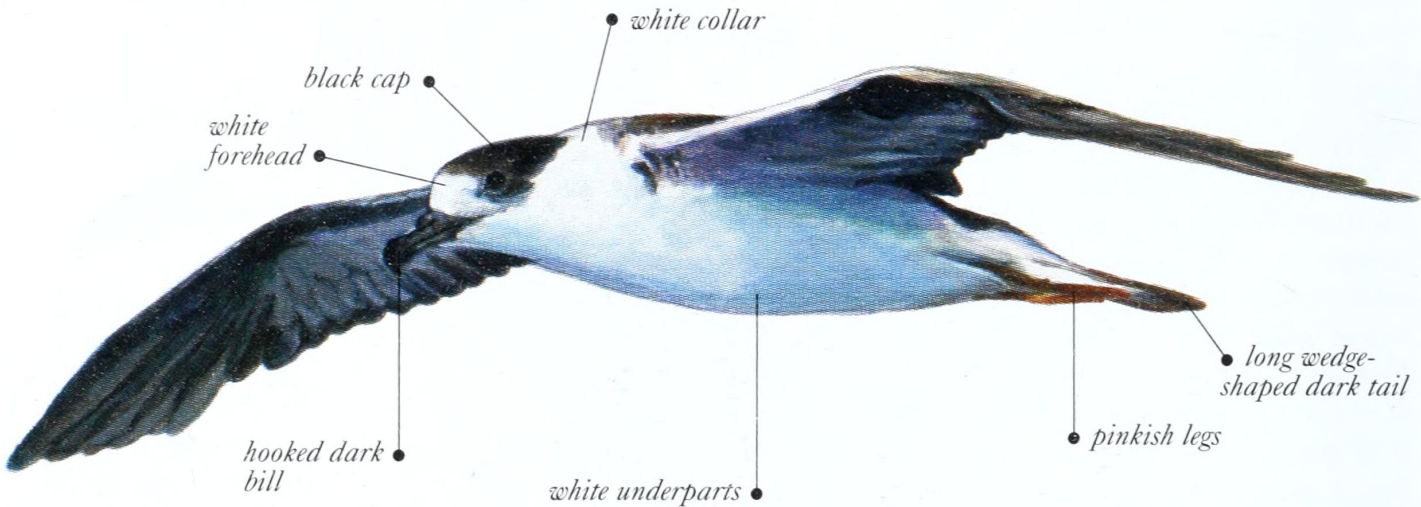
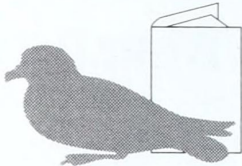
Plumage Sexes similar	Habitat 	Migration Migratory	Weight 8.7 ounces
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DATE _____ TIME _____ LOCATION _____

Family PROCELLARIIDAE	Species <i>Pterodroma hasitata</i>	Length 16 inches	Wingspan 35–40 inches
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BLACK-CAPPED PETREL

This poorly known “gadfly” petrel, which is found well offshore in the Gulf Stream, holds its broad wings bent at the wrist in flight. Its dark tail is long and wedge-shaped, contrasting with the rump, uppertail coverts, and tail base, all of which are white in most birds, although a few atypical individuals have a dark rump. Above its white forehead and dark hooked bill, the black cap is separated from the brownish gray upperparts by a broad



white collar, although this field mark is lacking in some birds. It is possible to mistake very dark-plumaged individuals for the very rare Bermuda Petrel well off the Atlantic Coast. The Black-capped Petrel is fairly common off the western edge of the Gulf Stream off North Carolina, and as many as a hundred birds have been recorded on some days.

- **SONG** Noisy at night on breeding grounds. Generally remains silent at sea.
- **BEHAVIOR** Noted for its high, erratic, roller coaster–like arcing flight at sea, especially in steady winds. Springs lightly from the water into flight.
- **BREEDING** Little is known about breeding habits. Nests on mountains and cliffs on a few islands in the Caribbean.
- **NESTING** Incubation 51–54 days by both sexes. Semialtricial young remain in nest 90–100 days, and are fed by both sexes.

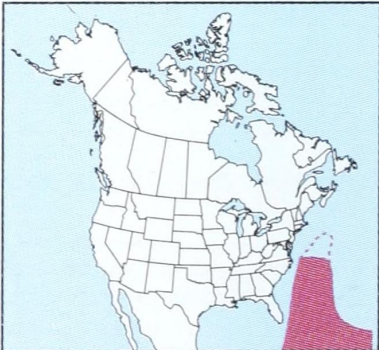
Similar Birds



BERMUDA PETREL
Much rarer; lacks white color; shorter bill; narrower white rump patch.



GREATER SHEARWATER
Larger; hooked black bill; black cap extends below eye; white collar, underparts, and U-shaped band on uppertail coverts; dusky smudge on belly; black tail; flight pattern differs.



Flight Pattern



Often swoops upward in great arcs above horizon.

- **POPULATION** Declining due to disturbance by humans and predation by mongooses and rats.
- **CONSERVATION** Little protection has been established over much of its breeding range.

Nest Identification

Shape



Location



No lining in either excavated or preformed burrow on sea cliffs • 1 white egg.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 9.8 ounces
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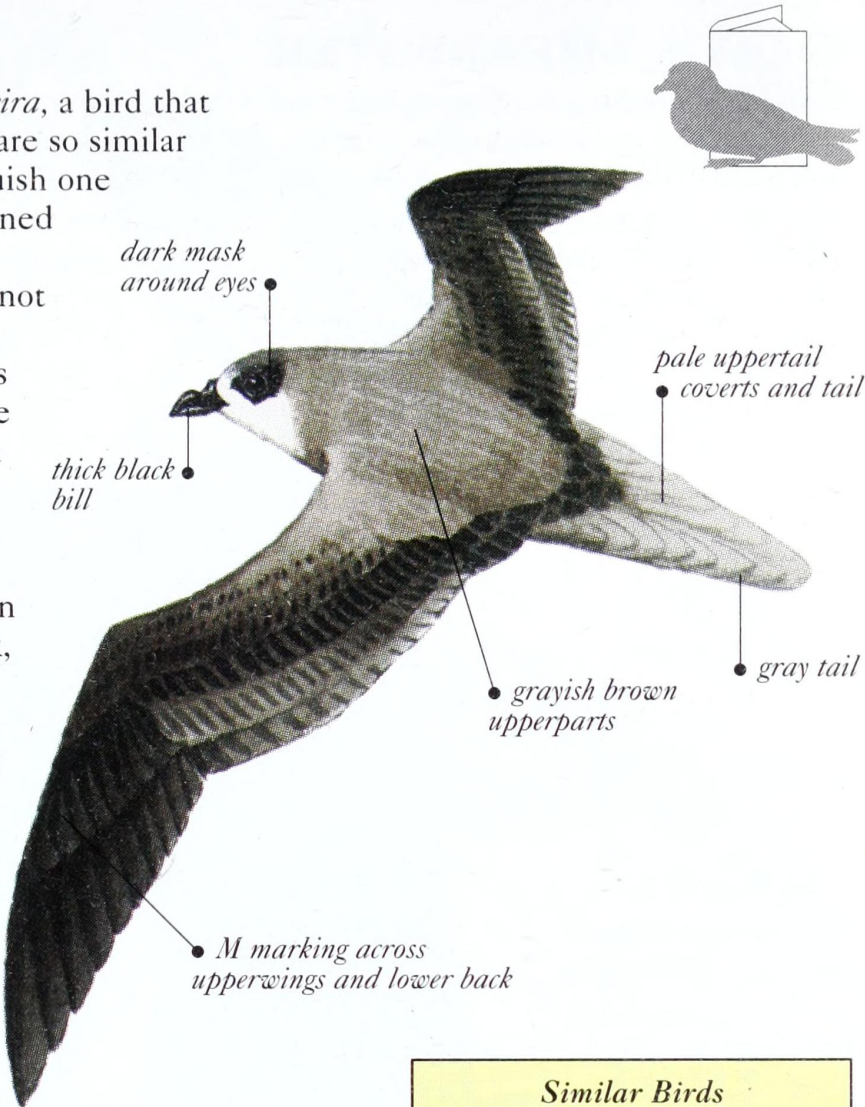
DATE _____ TIME _____ LOCATION _____

Family PROCELLARIIDAE	Species <i>Pterodroma feae</i>	Length 14 inches	Wingspan 37 inches
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FEA’S PETREL

Fea’s Petrel and Zino’s Petrel (*P. madeira*, a bird that breeds only on the island of Madeira) are so similar that it is extremely difficult to distinguish one from the other. Both are either threatened or endangered because of their small populations, so taking a specimen has not been appropriate. Without a specimen that would allow critical measurements to be taken in hand, it was not possible to certify which species had been seen off the mid-Atlantic Coast. However, recent photographs and field notes tend to indicate the petrel being observed is the Fea’s. The combination of white underparts, a dark facial mask, a partial breast band, mostly dark underwings, grayish brown upperparts with a dark M pattern, and wings bent back at the wrist separate this gadfly petrel from others that appear off the East Coast.

- **SONG** Loud shrieking or softer twittering, heard only at night around nesting islands.
- **BEHAVIOR** Solitary off North and mid-Atlantic Coasts. Spends most of its time at sea. May rest on water. Often feeds in large flocks around nesting islands and in waters of Southern Hemisphere. Eats various small fish and squid. Occasionally follows ships. Flight alternates glides with rapid wing beats in a zigzag progression, sailing in high arcs in strong winds.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Breeding biology poorly known. Incubation 48–54 days by both sexes. Young altricial; single hatchling fed by regurgitation by both sexes for 90–100 days, then abandoned. 1 brood per year.

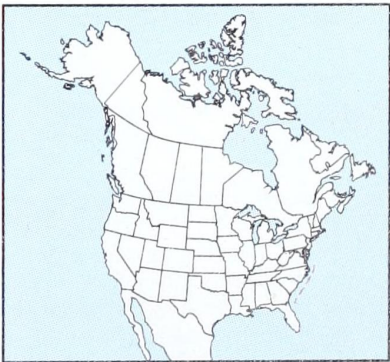


Similar Birds



HERALD PETREL
Pale morph • ashy brown head and upperparts; ashy brown mantle with blackish brown primaries; dark M marking across upperwing; white underparts with dusky breast band; white-tipped blackish undertail coverts.

- **POPULATION** Rare in North America off coasts of North Carolina, Virginia, Nova Scotia; May through September.
- **CONSERVATION** Highly threatened species. Vulnerable to predation by rodents and cats on breeding islands.



Flight Pattern



Fluttery wing beats alternate with glides. High erratic soaring arcs become higher and more dashing as wind speeds increase.

Nest Identification



Small amount of plant material • long horizontal burrow or space between rocks • built by both sexes • 1 white egg, flecked with reddish or violet at large end; short subelliptical to short oval, 2.2 x 1.65 inches.

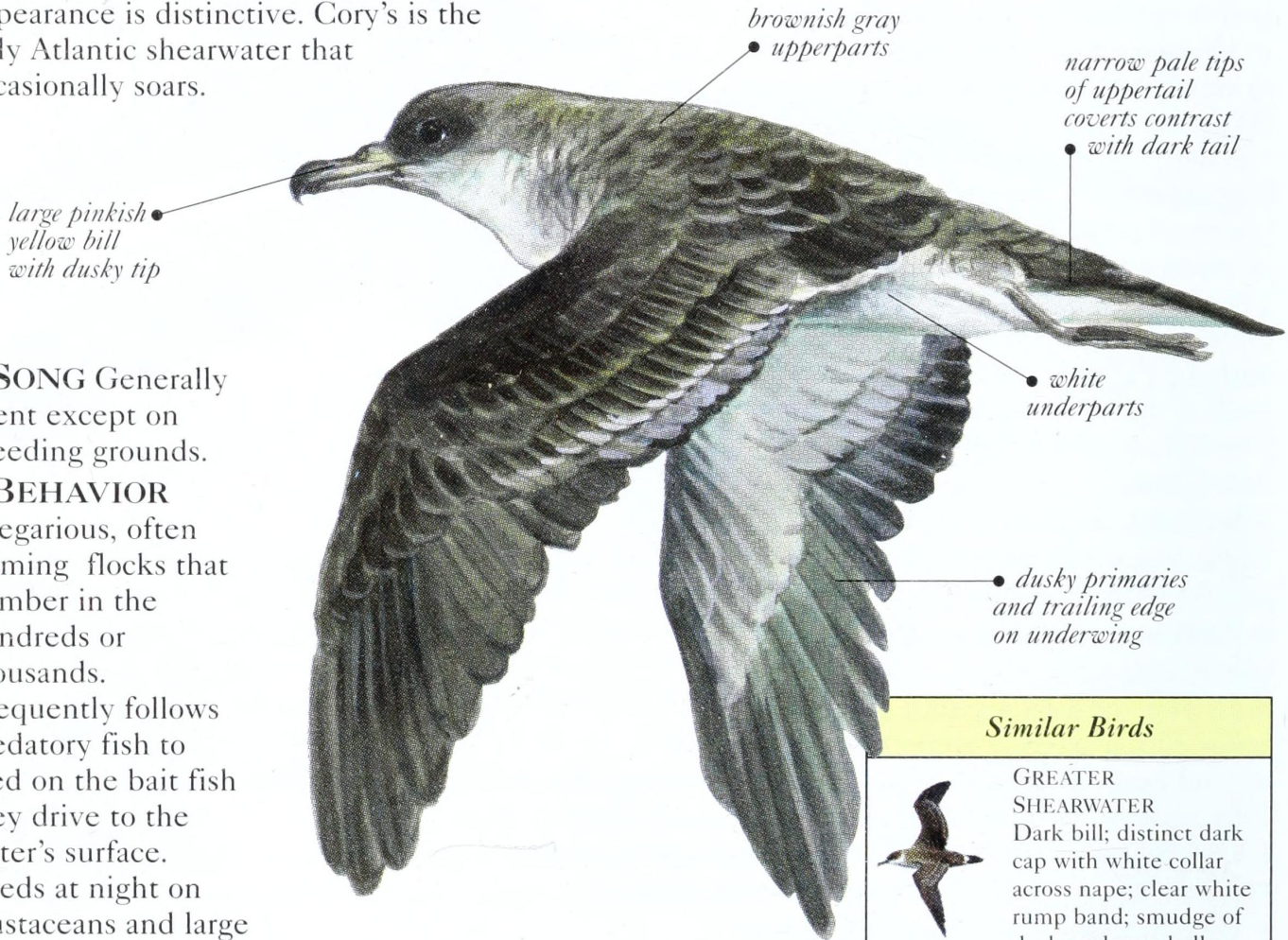
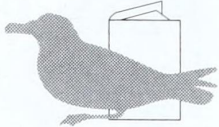
Plumage Sexes similar	Habitat	Migration Migratory	Weight Undetermined
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DATE _____ TIME _____ LOCATION _____

Family PROCELLARIIDAE	Species <i>Calonectris diomedea</i>	Length 18–21 inches	Wingspan 44 inches
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CORY’S SHEARWATER

The largest shearwater found along the Atlantic Coast skims the surface of the ocean with slow wing beats and a buoyant flight similar to that of the albatross. When this bird is seen flying straight ahead, its wings show a distinctive downward bow from wrist to wing tip. The large pale bill as well as the way the brown upperparts blend gradually with the white underparts without producing a capped appearance is distinctive. Cory’s is the only Atlantic shearwater that occasionally soars.



- **SONG** Generally silent except on breeding grounds.
- **BEHAVIOR** Gregarious, often forming flocks that number in the hundreds or thousands. Frequently follows predatory fish to feed on the bait fish they drive to the water’s surface. Feeds at night on crustaceans and large squid it takes from the surface. Has a keen sense of smell.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 52–55 days by both sexes. Semialtricial

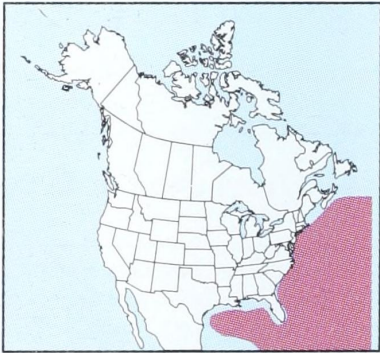
young stay in nest about 90 days, although parents abandon young while still in nest. Young are fed by both sexes at night.

- **POPULATION** Numerous, but showing some decline.

Similar Birds



GREATER SHEARWATER
Dark bill; distinct dark cap with white collar across nape; clear white rump band; smudge of dusky color on belly; clear contrast between dark upperparts and white underparts.



Flight Pattern	
Soars if wind is up, looping and circling on fixed wings. Or, deep wing beats with wings bowed downward in long low glide.	
Nest Identification	
Shape	Location

Both sexes work together to either dig a new burrow or clean out a previously used burrow • sometimes under a rock • no material added • 1 white egg; blunt oval or subelliptical, 2.8 inches long.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.2 pounds
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DATE _____ TIME _____ LOCATION _____

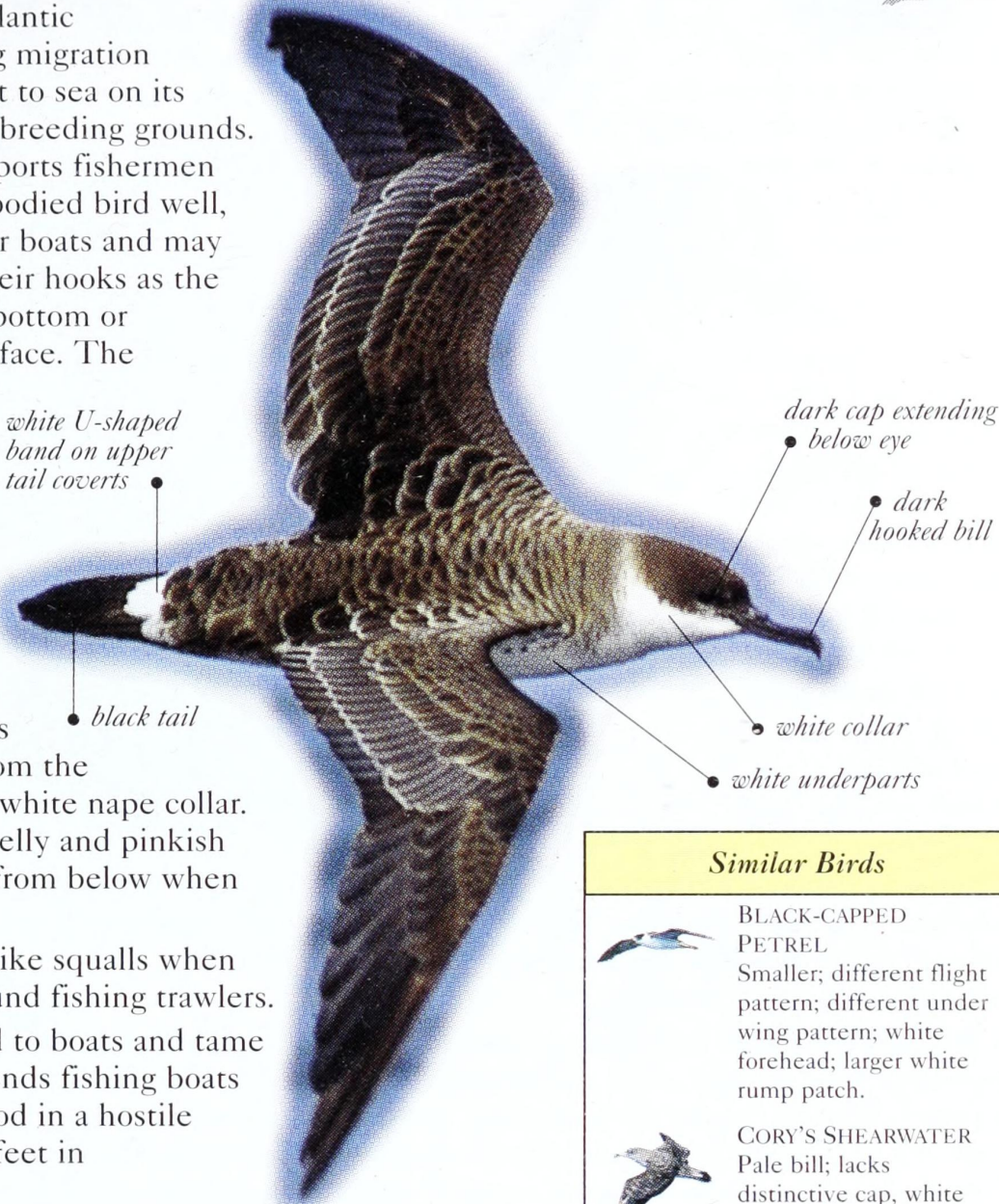
Family PROCELLARIIDAE	Species <i>Puffinus gravis</i>	Length 18–20 inches	Wingspan 39.5–48 inches
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GREATER SHEARWATER

This large powerful shearwater is fairly common off the Atlantic Coast of the US in spring migration where it remains well out to sea on its way to its south Atlantic breeding grounds. Party fishing boats and sports fishermen know this strong heavy-bodied bird well, for it often comes to their boats and may try to take the bait off their hooks as the lines are lowered to the bottom or retrieved close to the surface. The bird sometimes takes fish that are tossed back overboard. Although it appears gull-like at a distance, the bird is easily distinguished by its stiff straight wings. A dark brownish black cap extends beneath the eyes and is often separated from the brownish gray back by a white nape collar. A dusky smudge on its belly and pinkish legs and feet are visible from below when the bird is in flight.

- **SONG** Noisy with catlike squalls when aggressively feeding around fishing trawlers.
- **BEHAVIOR** Attracted to boats and tame on water near them. Attends fishing boats where it competes for food in a hostile manner. Dives to 20–30 feet in pursuit of fish.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation by both sexes. First flight at 84 days. Semialtricial young fed by both sexes at night.
- **POPULATION** Total well over 5 million and seems to be increasing. From the Gulf of Maine northward it is common in the summer.

• **CONSERVATION** Many are killed by severe storms in North Atlantic; carcasses sometimes found on beaches.



Similar Birds

- BLACK-CAPPED PETREL**
Smaller; different flight pattern; different under wing pattern; white forehead; larger white rump patch.
- CORY'S SHEARWATER**
Pale bill; lacks distinctive cap, white nape collar, white U-shaped rump patch, and smudge on belly.

Flight Pattern

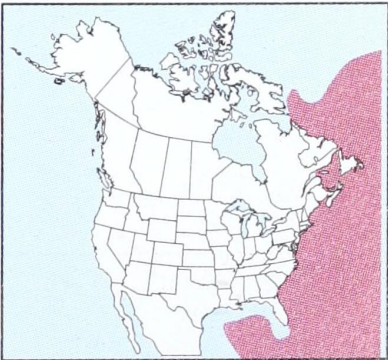


In strong winds soars in high arcs, often banking to change direction. Or, deep wing beats with a long glide near water.

Nest Identification

Shape Location

Lined with grass • sharply angled • about 3 feet long • sometimes in crevice among rocks • 1 white egg.



Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.9 pounds
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DATE _____ TIME _____ LOCATION _____

Family PROCELLARIIDAE	Species <i>Puffinus griseus</i>	Length 18–20 inches	Wingspan 37–43 inches
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SOOTY SHEARWATER

A common summer visitor off both the Atlantic and Pacific Coasts, this stocky short-necked sooty brown bird is probably the best-known shearwater in North American waters. It normally feeds well offshore, but during strong onshore winds hundreds of birds may be seen by observers from the shoreline. Look for the long slender dark wings with silvery gray underwing coverts. Some birds may have a white underwing lining. Legs and feet are blackish.

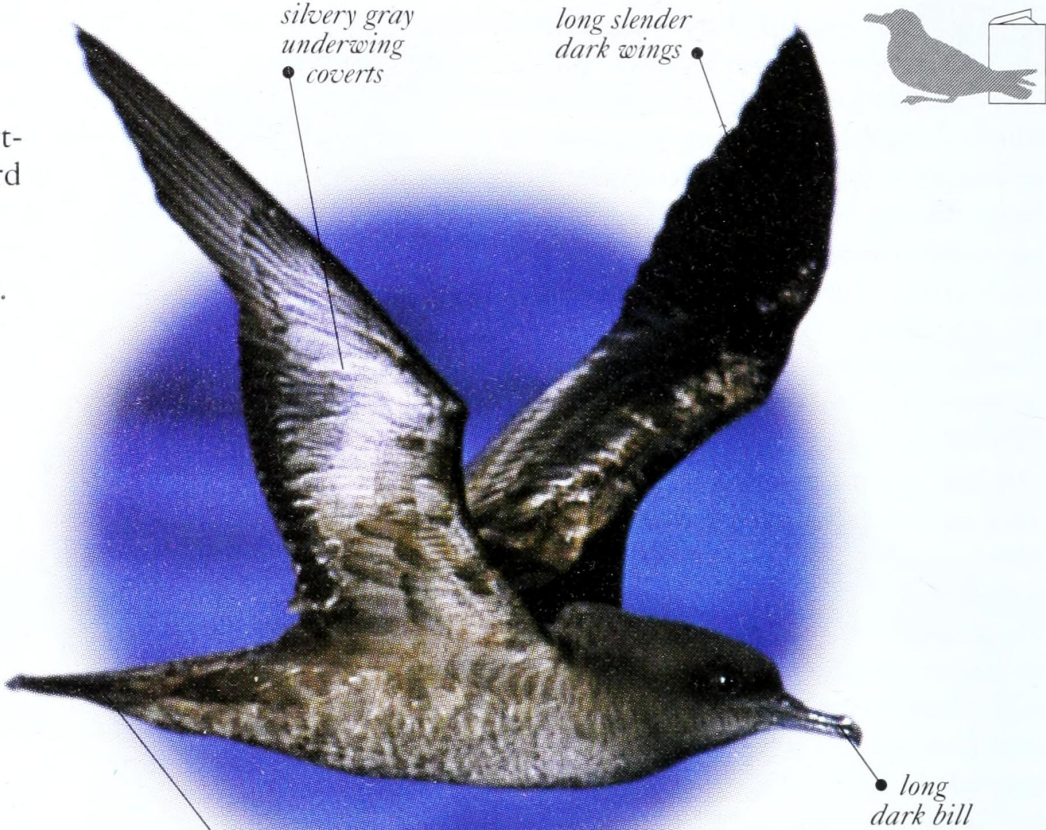
• **SONG** The Sooty Shearwater is silent except for noisy squeals when squabbling for food. Also makes inhaled and exhaled *koo-wah-koo-wah-koo-wah* when on breeding grounds.

• **BEHAVIOR** This bird often gathers in large flocks. Does not follow ships like some other seabirds, but is attracted to fishing trawlers. Flies with long glides on long narrow slightly swept-back wings. Sometimes makes short dives for fish, squid, and crustaceans. May plunge to dive on open wings from several feet above water.

• **BREEDING** Colonial. The Sooty Shearwater nests on various isolated islands in the southern oceans.

• **NESTING** Incubation 52–56 days by both sexes. Semialtricial young remain in nest for about 97 days. Adults usually leave at night. Young fed by both sexes at night.

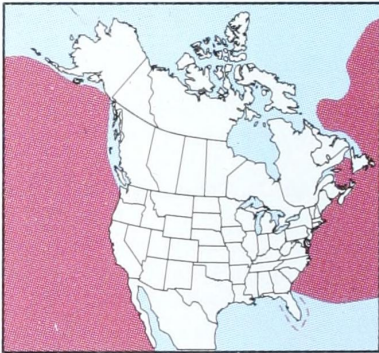
• **POPULATION** The Sooty Shearwater is an abundant bird, with a total population of more than 10 million.



Similar Birds



SHORT-TAILED SHEARWATER
Shorter bill; less contrasting grayer underwing linings often restricted to a panel on the median secondary coverts and extending slightly onto the inner median primary coverts; underwings may be dark overall, lacking pale panels • only in the West.



Flight Pattern

Strong direct flapping alternating with long glides.

Nest Identification

Shape Location

Made of leaves and grass • up to 10 feet long • built by both sexes • 1 white egg; elliptical, 1.9 x 3 inches.

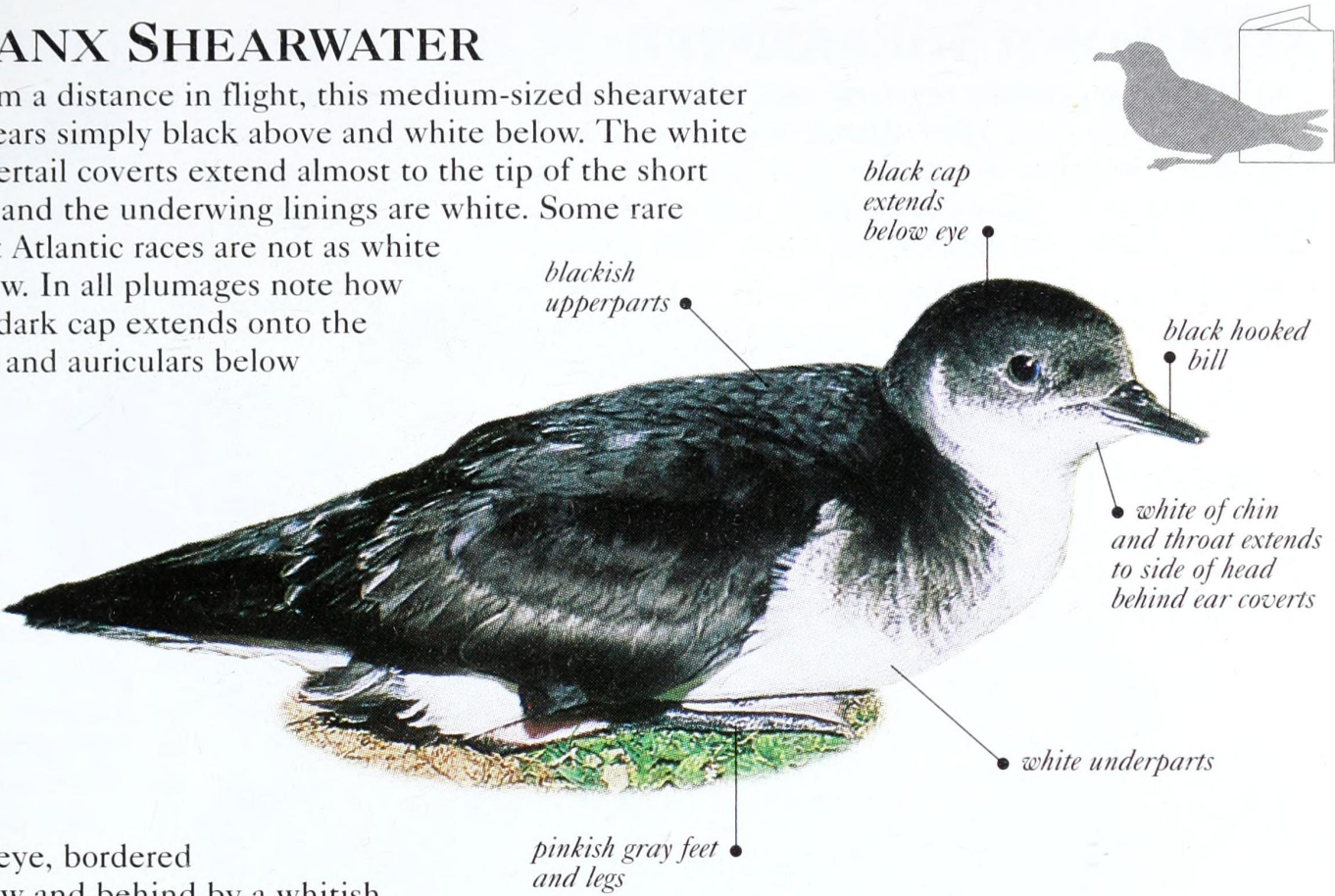
Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.8 pounds
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DATE _____ TIME _____ LOCATION _____

Family PROCELLARIIDAE	Species <i>Puffinus puffinus</i>	Length 12–15 inches	Wingspan 33–35 inches
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MANX SHEARWATER

From a distance in flight, this medium-sized shearwater appears simply black above and white below. The white undertail coverts extend almost to the tip of the short tail, and the underwing linings are white. Some rare East Atlantic races are not as white below. In all plumages note how the dark cap extends onto the face and auriculars below



the eye, bordered below and behind by a whitish crescent that extends from chin and throat to the side of the head behind the auriculars, or ear coverts. Manx Shearwaters seem to be increasing in numbers, with more birds being recorded on pelagic birding trips off the North Carolina coast.

- **SONG** Generally silent at sea.
- **BEHAVIOR** Gregarious. This shearwater is excellent on the wing with stiff rapid wing strokes followed by shearing glides low over the water. Banks from side to side, showing black upperparts first, then the snow-white underparts. Good swimmer; sometimes goes underwater for fish and squid. Adults may forage more than 600 miles from nesting burrow, returning to it at night. Does not follow ships, but is attracted to smaller fishing boats and trawlers.
- **BREEDING** Monogamous. Colonial.

Flight Pattern

Long glides interrupted by several rapid wing beats.

Nest Identification

Shape

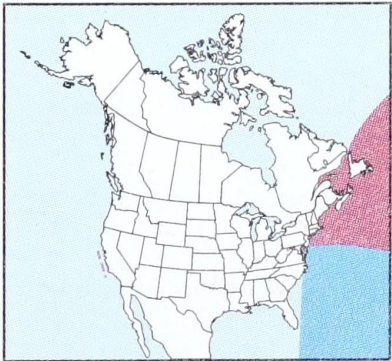
Location

- **NESTING** Incubation 47–63 days by both sexes. Semialtricial young fed by both sexes. Parents abandon young at 60 days. Young leave nest 8–9 days later. 1 brood per year.
- **POPULATION** Apparently increasing off the East Coast.

Similar Birds

AUDUBON'S SHEARWATER
Similar but smaller; dark undertail coverts; different flight pattern with more rapid, fluttering wing beats.

BLACK-VENTED SHEARWATER
In the West only • dark mottling on sides of face, neck, and breast; dusky to dark undertail coverts.



Lined with grass and leaves • on ground • on isolated islands • built by both sexes • 1 white egg; broad or blunt ovate or subelliptical, 2.35 x 1.6 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.0 pound
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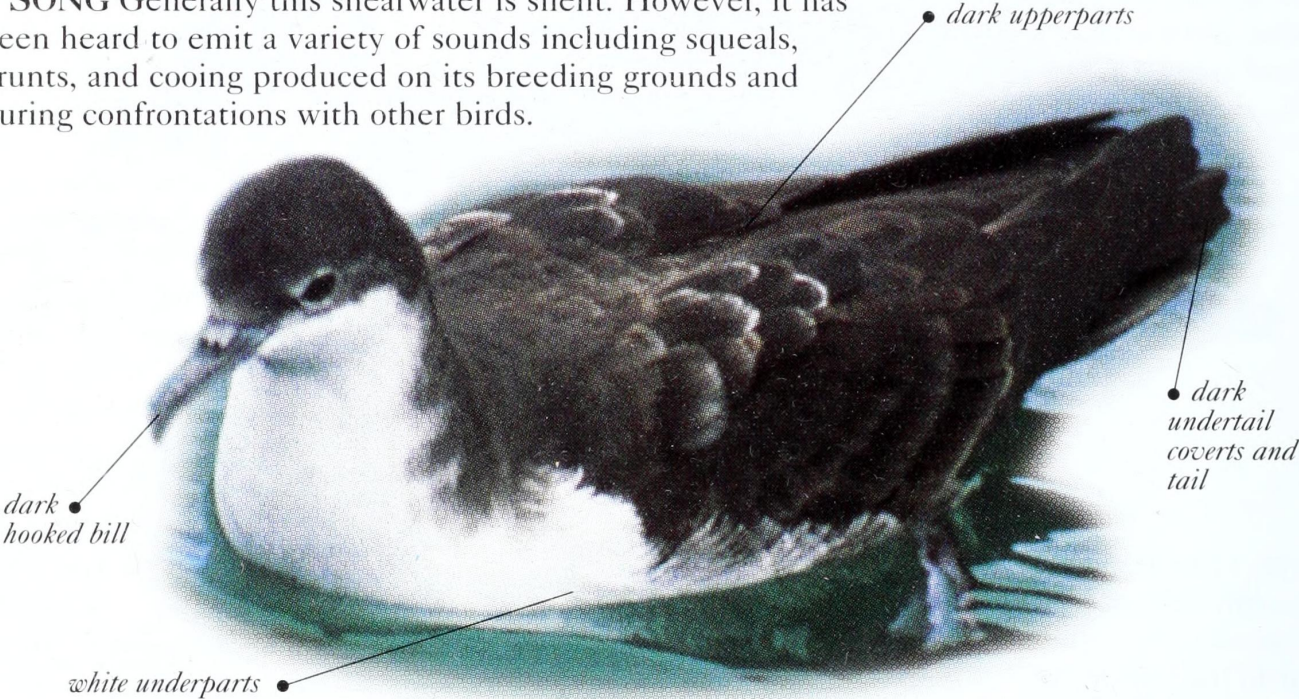
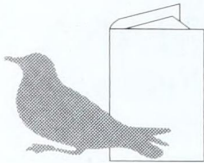
DATE _____ TIME _____ LOCATION _____

Family PROCELLARIIDAE	Species <i>Puffinus lherminieri</i>	Length 12 inches	Wingspan 27 inches
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AUDUBON'S SHEARWATER

The smallest shearwater regularly seen off the Atlantic beats its wings more rapidly than any other Atlantic shearwater. This stocky bird with broad wings has dark brown upperparts, matching its tail, which is long for a shearwater. Pinkish legs and feet, dark undertail coverts, and dark tail are visible from below.

• **SONG** Generally this shearwater is silent. However, it has been heard to emit a variety of sounds including squeals, grunts, and cooing produced on its breeding grounds and during confrontations with other birds.



- **BEHAVIOR** Away from its breeding areas, Audubon's Shearwater is often seen in flocks that may number up to hundreds of birds. As a rule, this shearwater does not usually follow ships. It tends to spend most of its time on the water, where it may dive for its primary diet of marine organisms and animals, especially fish and squid.
- **BREEDING** This shearwater nests in colonies on small isolated islands, usually in rock crevices or under clumps of dense vegetation.
- **NESTING** Incubation 51 days by both sexes. Semialtricial young stay in nest 71–73 days. Fed by both sexes at night. 1 brood per year.

Similar Birds



LITTLE SHEARWATER
More white in face and under wings; white under tail coverts; grayish legs and feet; different flutter-and-glide flight.

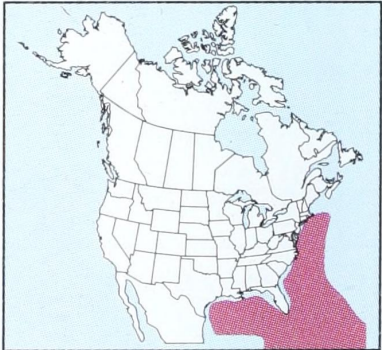


MANX SHEARWATER
Larger; different flight pattern with more soaring and less flapping.

Flight Pattern

Flap and glide flight with rapid wing beats.

- **POPULATION** Declining.
- **CONSERVATION** Protected in only part of its breeding range. Caribbean populations disturbed by humans; adults and young taken from nest burrows for food.



Nest Identification

Shape

Location

No lining • on ground or in rock crevice • built by both sexes • 1 white egg, 2 inches long.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 5.9 ounces
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DATE _____ TIME _____ LOCATION _____

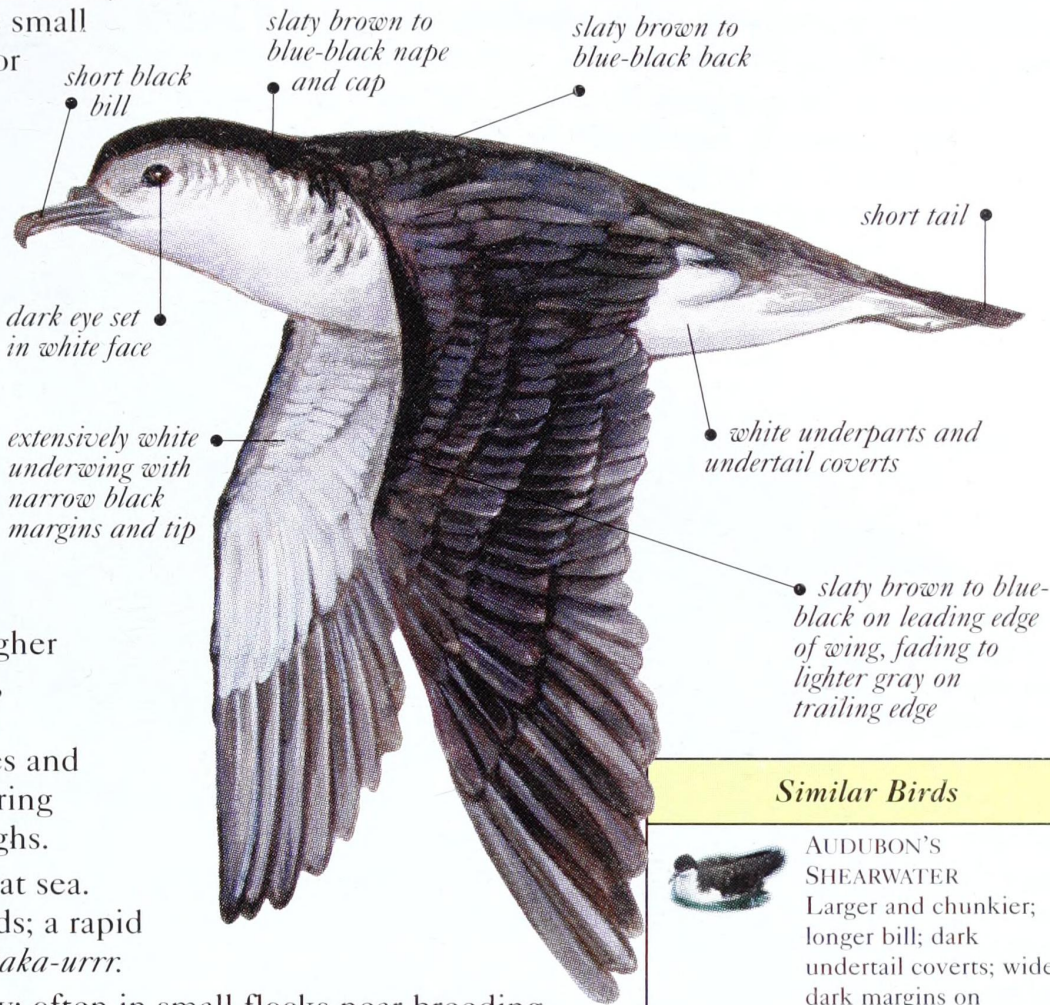
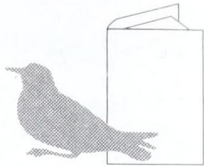
Family PROCELLARIIDAE	Species <i>Puffinus assimilis</i>	Length 10–11 inches	Wingspan 23–25 inches
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LITTLE SHEARWATER

The smallest of the shearwaters, this bird has been spotted off the Atlantic coast of North America only a few times. Unlike many seabirds, it often follows ships. Its small size, black-and-white or dark slaty-brown and white appearance (similar to that of the larger Manx Shearwater), white face, and stiff-winged fluttering flight are all distinctive. Under conditions of light winds, it flies with several quick shallow whirring wing beats, followed by short low glides. However, in higher winds it arcs and soars, wheeling, gliding, and sideslipping over waves and executing quick fluttering wing beats in the troughs.

- **SONG** Often silent at sea. Throaty, wheezy sounds; a rapid repetitive *kakakakakaka-urrr*.
- **BEHAVIOR** Solitary; often in small flocks near breeding grounds. Swims and dives for food. Also picks food off surface of water, pattering with feet across water and with wings held above back like a large storm-petrel. Eats fish and squid. Usually feeds alone; sometimes in small flocks. Spends a lot of time on the water.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 53 days by both sexes. Semialtricial young stay in nest 72 days; fed at night by both sexes. 1 brood per year.

- **POPULATION** Accidental off the Atlantic Coast.
- **CONSERVATION** Vulnerable to disturbance by humans; also predation at nesting colonies by introduced predators.



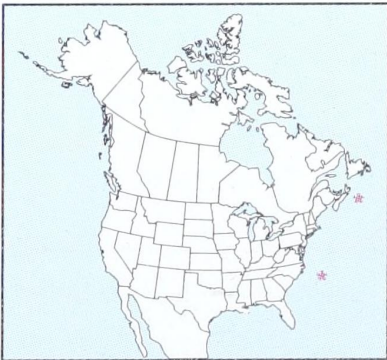
Similar Birds



AUDUBON'S SHEARWATER
Larger and chunkier; longer bill; dark undertail coverts; wider dark margins on underwings; less white on sides of neck and face; unmarked charcoal-gray wings.



MANX SHEARWATER
Larger, darker face; broader dark edge to underwings; different flight progression.



Flight Pattern

Flies low, fast, and straight with rapid flapping action and banking glides. In strong winds, arcing banks and glides.

Nest Identification

Shape

Location

Burrow without lining • on ground under rock crevice or in bank • dug mostly by female • 1 white egg; elliptical, 1.9 x 1.3 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 8.0 ounces
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DATE _____ TIME _____ LOCATION _____

Family HYDROBATIDAE	Species <i>Oceanites oceanicus</i>	Length 6–7.5 inches	Wingspan 16–17 inches
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WILSON'S STORM-PETREL

This is the storm-petrel that is most commonly seen off the Atlantic Coast, and it may be one of the most abundant birds in the world. It is the smallest storm-petrel seen off the Atlantic Coast. Few pelagic birds are easily identified from a rocking boat at sea, but this species can be identified by its short squared tail and feet extending beyond the tip of the



tail, rather short rounded wings, and its large U-shaped rump patch. These birds often come very close to boats, crisscrossing the wake of the boat and providing excellent views and easier confirmation of their identity.

- **SONG** Usually silent at sea, but makes noisy chattering sounds around nesting colonies.
- **BEHAVIOR** Generally flies close to water surface with purposeful shallow wing beats similar to a swallow or small tern. Frequently patters feet on water while holding wings above the body as it feeds on small marine organisms, often “dancing” on the surface and almost hovering in one place as the winds lift it kitelike a few inches off the surface of the water. Frequently follows ships and chum lines (slicks of fish oils); attends fishing boats and whales as it forages.

Flight Pattern

Direct flight with steady shallow wing beats.

Nest Identification

Shape Location

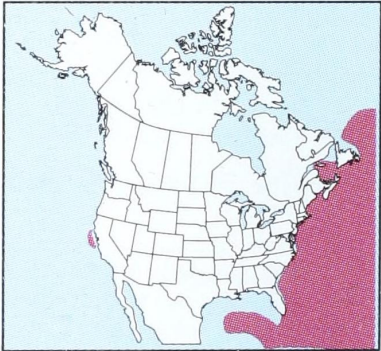
- **BREEDING** Colonial.
- **NESTING** Incubation 40–50 days by both sexes. Semialtricial young fed by both sexes. Young leave nest at 46–97 days.
- **POPULATION** Large and apparently stable.

No built nest • hides egg in hole or crevice • 1 white egg, usually with reddish brown spots on larger end.

Similar Birds

LEACH'S STORM-PETREL
Larger; longer forked tail without feet protruding beyond tip; mothlike flight pattern.

BAND-RUMPED STORM-PETREL
Larger; longer tail; flight pattern is with shallow wing beats followed by stiff-winged glides similar to those of a shearwater.



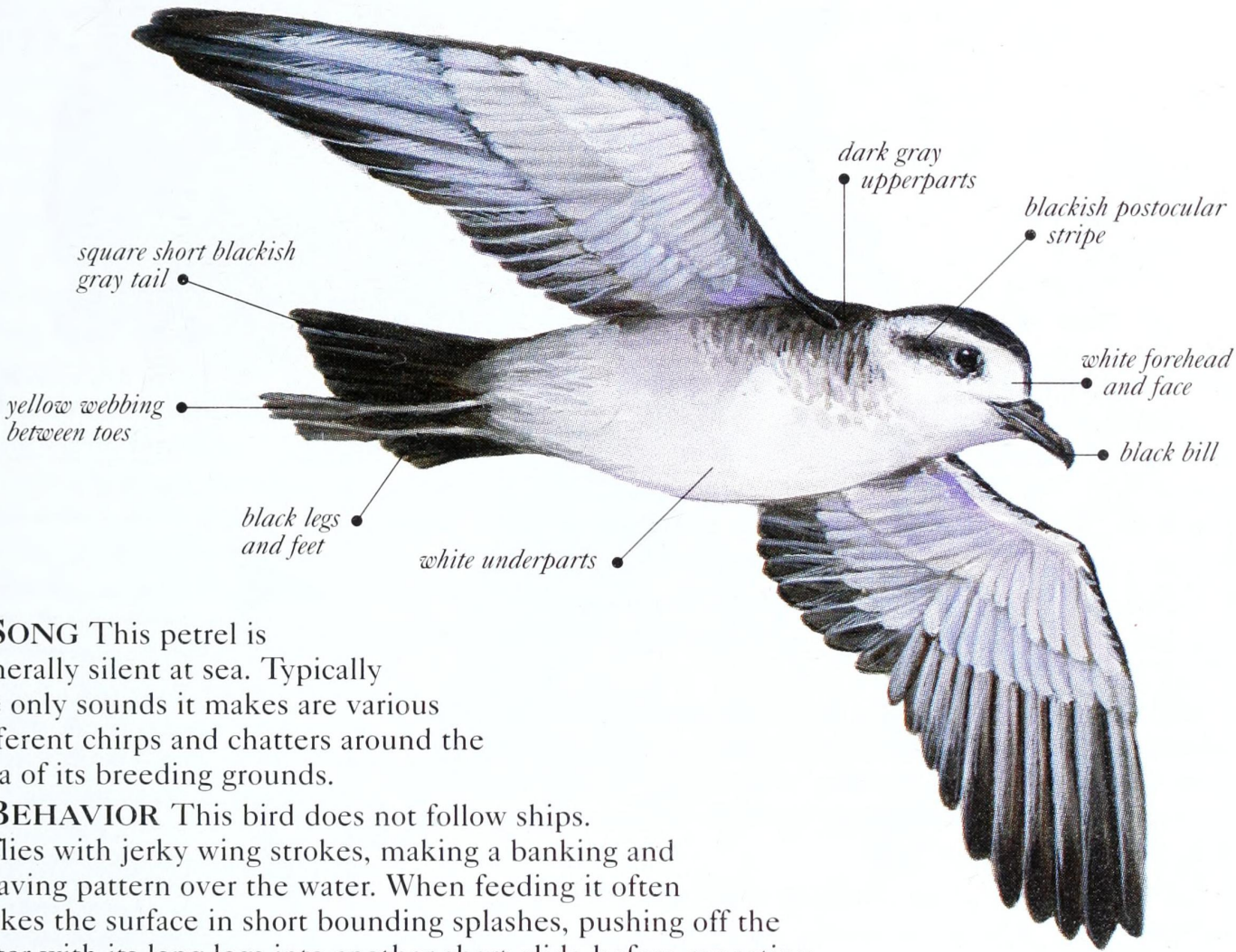
Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.1 ounces
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DATE _____ TIME _____ LOCATION _____

Family HYDROBATIDAE	Species <i>Pelagodroma marina</i>	Length 7.5–8 inches	Wingspan 16 inches
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WHITE-FACED STORM-PETREL

The White-faced Storm Petrel is the only Atlantic storm-petrel that displays the combination of dark upperparts and light underparts. This bird may resemble a phalarope when sitting on the water. One of the species considered truly pelagic, it forages for its food in the deeper ocean waters well offshore. In flight note its white underparts and its black legs and feet with toes protruding beyond the square short blackish gray tail. From above, a grayish rump patch is evident. The webbing between its toes is yellow.



- **SONG** This petrel is generally silent at sea. Typically the only sounds it makes are various different chirps and chatters around the area of its breeding grounds.
- **BEHAVIOR** This bird does not follow ships. It flies with jerky wing strokes, making a banking and weaving pattern over the water. When feeding it often strikes the surface in short bounding splashes, pushing off the water with its long legs into another short glide before repeating the performance.
- **BREEDING** Colonial. Breeds on small oceanic islands.

Flight Pattern

Rapid shallow wing beats followed by stiff-winged glides; also performs erratic side-to-side flight.

- **NESTING** Incubation 55–56 days by both sexes. Young semialtricial; first flight at 52–67 days.
- **POPULATION** This bird's status has not been determined.



Nest Identification

Shape Location

On oceanic islands • 1 white egg with wreath of dark dots around larger end.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.7 ounces
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DATE _____ TIME _____ LOCATION _____

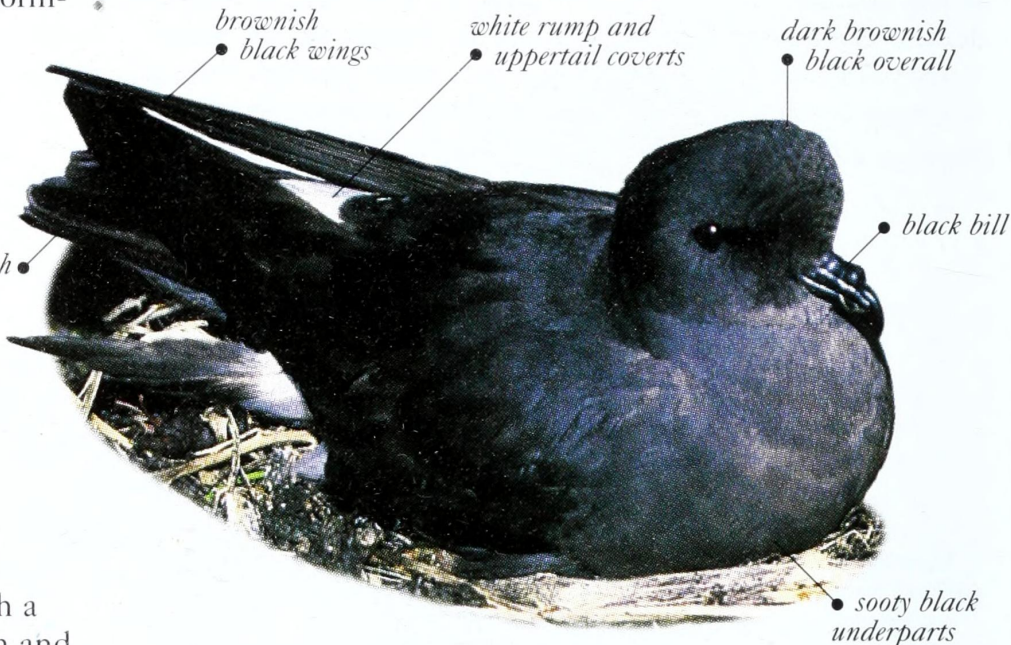
Family	HYDROBATIDAE	Species	<i>Hydrobates pelagicus</i>	Length	5.5–6 inches	Wingspan	14.5–15.5 inches
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EUROPEAN STORM-PETREL

Found primarily in the northern and eastern Atlantic and rarely reported in the waters off Nova Scotia, this gregarious bird is the smallest and most common of the storm-petrels in the waters off western Europe and throughout the Mediterranean. It has a weak batlike flight, fluttering low over the surface of the sea, and it often follows ships.

Wintering at sea, strong offshore winds sometimes bring it close inshore off the British Isles. It appears small and dark in flight with a U-shaped white rump patch and narrow buff-gray bar on the upperwing. The broad white stripe on the underwing is diagnostic. It has black legs and feet. Juveniles resemble adults but have a more pronounced pale upperwing bar.

- **SONG** In nesting colony, an ongoing churring song interspersed with *chikka* sounds, as if the bird were hiccupping. Silent at sea.
- **BEHAVIOR** Solitary or in small groups or flocks. Feeds far offshore for small fishes and zooplankton containing mollusks and crustaceans. When feeding holds wings midway above back and patters on the surface with its feet. Follows ships for oils, animal fats, and scraps.
- **BREEDING** Monogamous. Colonial. Mates for life.
- **NESTING** Incubation 38–50 days by both sexes. Semialtricial young remain in nest 56–73 days, fed by both sexes through regurgitation. 1 brood per year.



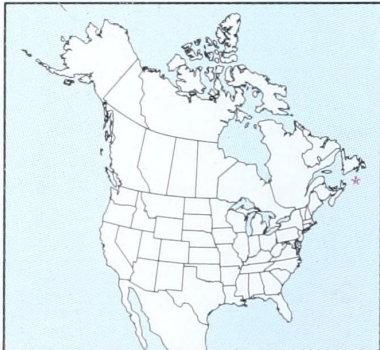
Similar Birds



WILSON'S STORM-PETREL
Larger; broader white band across rump; long legs; feet trail beyond tip of tail; yellow-webbed blackish feet; more direct and swallowlike flight.



LEACH'S STORM-PETREL
Larger in size; longer, more pointed wings; less white on rump; forked tail; erratic mothlike flight.



Flight Pattern



Weak, fluttering, rapid, almost continuous, batlike wing beats interspersed with short glides.

Nest Identification



- **POPULATION** Rare to casual vagrant off the North Atlantic Coast of the Maritimes.
- **CONSERVATION** Some colonies have declined due to the introduction of cats and other predators on nesting areas of offshore islands.

No nest materials • preformed or excavated burrows, rabbit burrows, crevices in stone walls or between boulders, and cliffs • 2–3 feet deep • built by both sexes • 1 white egg, often speckled with reddish brown, concentrated at larger end; elliptical to subelliptical, 1.10 inches long.

Plumage	Sexes similar	Habitat		Migration	Migratory	Weight	0.9 ounce
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DATE _____ TIME _____ LOCATION _____

Family	HYDROBATIDAE	Species	<i>Oceanodroma leucorhoa</i>	Length	8–9 inches	Wingspan	18–19 inches
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LEACH'S STORM-PETREL

This slender long-winged storm-petrel can be seen off both coasts of North America. Some of the birds found off the Pacific Coast have dark rumps, rather than the more common and conspicuous white rump broken in the middle by a gray-brown stripe. Besides the rump, this bird's plumage is entirely dark brown. The tail is long and forked, but the fork is not always easily seen. It has short legs and feet that do not reach or protrude beyond the tip of its tail.

- **SONG** Short sharp ticking notes ending in a slurred trill.
- **BEHAVIOR** Strictly nocturnal on breeding grounds. Does not follow ships. Feeds on surface of water on small squid, crustaceans, and fish. Often feeds with wings held above horizontal while it patters on water surface. Its characteristic flight is slow, erratic, and mothlike, or similar to that of a nighthawk.
- **BREEDING** Monogamous and colonial.
- **NESTING** Incubation 38–46 days by both sexes. Semialtricial young remain in nest 63–70 days. Fed at night through regurgitation by both sexes. First flight at 63–70 days. 1 brood per year.



Similar Birds



WILSON'S STORM-PETREL
Shorter, rounded wings; feet extend beyond squared, not forked, tail; has swallowlike flight pattern.



ASHY STORM-PETREL AND BLACK STORM-PETREL
Both lack the erratic flight pattern • both range off Pacific Coast.



BAND-RUMPED STORM-PETREL
Larger; shorter wider wings; conspicuous large white rump patch; stiff-winged glides and zigzag flight like a small shearwater • ranges off Atlantic Coast.

Flight Pattern



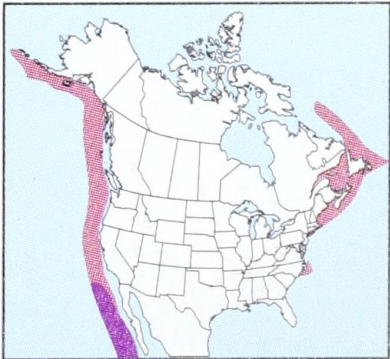
Bounding and erratic; mothlike with frequent changes of direction and speed.

Nest Identification

Shape 

Location 

- **POPULATION** Slight decline, although total population is in the millions.
- **CONSERVATION** Some declines are showing on islands where humans have introduced predator species.



Lined with leaves and grass • under grass, rocks, or tree roots, or on bank • may be built by both sexes, although some literature states only the male digs burrow • 1 creamy white egg, often nest-stained and occasionally marked with reddish purple; subelliptical to oval, 1.3 inches long.

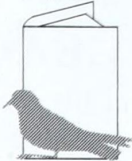
Plumage	Sexes similar	Habitat		Migration	Migratory	Weight	1.2 ounces
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DATE _____ TIME _____ LOCATION _____

Family HYDROBATIDAE	Species <i>Oceanodroma castro</i>	Length 7.5–8.5 inches	Wingspan 16.5–18 inches
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BAND-RUMPED STORM-PETREL

This tropical bird spends its time alone or in small groups at sea. It is seen in summer off the Atlantic Coast of North America. It seldom walks on the water. Often in the company of other storm-petrels, it can be separated from them by its flight pattern, which resembles that of a tiny shearwater. In flight the white rump patch is clear, and the black legs and feet do not project beyond the blackish tail, which in fresh adults has a slight notch.



bold white band on rump and uppertail coverts

faint pale gray-brown upperwing bar

sooty blackish brown overall

short stubby black bill

Juveniles resemble adults but paler greater coverts create a more distinct bar on the upperwing.

- **SONG** High-pitched squeak around nest. Silent at sea.
- **BEHAVIOR** Solitary, in pairs or small groups away from nests in nonbreeding season. Feeds at sea but does not follow ships. Eats crustaceans, small fishes, and other marine animals. Nocturnal around nesting burrow.
- **BREEDING** Monogamous. Colonial. Mates for life.
- **NESTING** Incubation 40–48 days by both sexes. Semialtricial young remain in nest 53–95 days, fed by both sexes through regurgitation. 1 brood per year.
- **POPULATION** Rare off North Atlantic; casual to uncommon in Gulf of Mexico; fairly common on mid-Atlantic Coast off North Carolina and Virginia. Storm-driven birds accidental inland.

Similar Birds



WILSON'S STORM-PETREL
Smaller in size; larger U-shaped white rump patch; longer black bill; yellow-webbed black feet project beyond squared tail; prominent diagonal secondary wing bar; more erratic and fluttery flight.



LEACH'S STORM-PETREL
Smaller; more distinct diagonal upperwing bar; longer more pointed wings; more deeply forked tail; ragged-edged white rump patch with central dividing line; bounding nighthawklike flight.

Flight Pattern



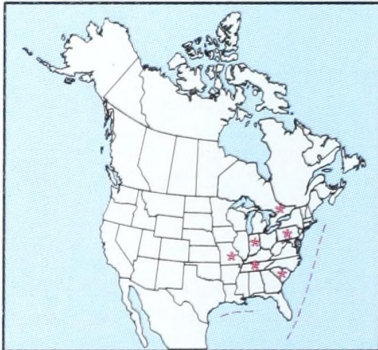
Buoyant zigzag with several rapid wing strokes followed by glide on horizontal or slightly downward-bowed wings.

Nest Identification

Shape Location

No nest materials • burrows or crevices of rocky areas, 2–3 feet deep • dug by both sexes or cleaned out from previous year • 1 white egg; elliptical to subelliptical, 1.3 inches long.

- **CONSERVATION** Vulnerable to introduced predators in nesting areas and to pollution from oil spills.



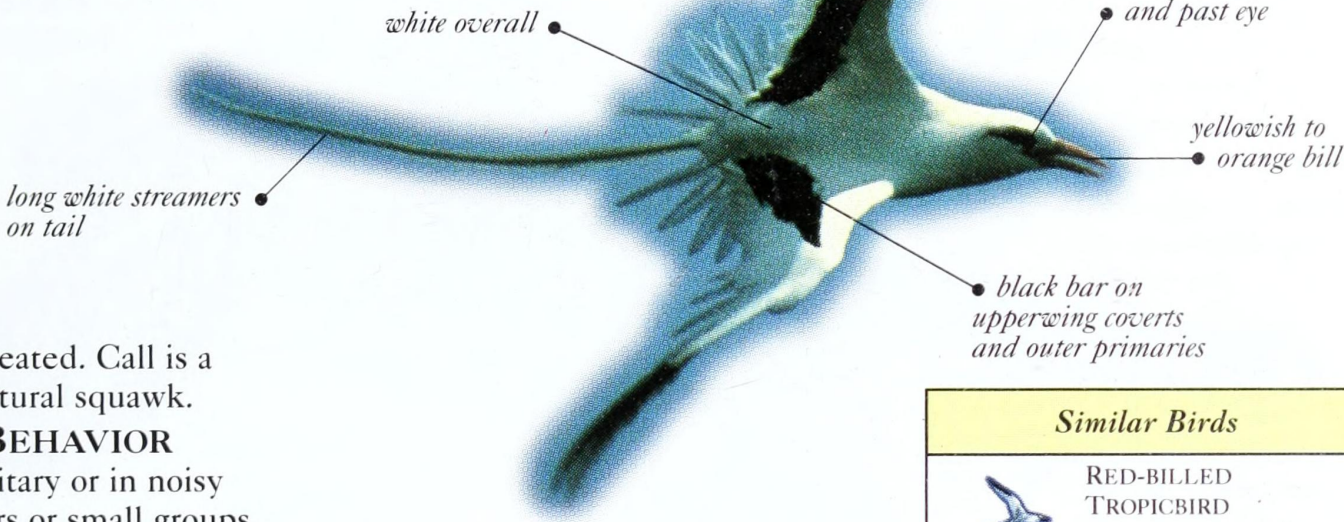
Plumage Sexes similar	Habitat
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Family PHAETHONTIDAE	Species <i>Phaethon lepturus</i>	Length 28–32 inches	Wingspan 35–38 inches
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WHITE-TAILED TROPICBIRD

This bird nests in Bermuda, the Bahamas, and throughout the Caribbean. It is the smallest of the tropicbirds, and the one most likely to be spotted off North America’s Atlantic coast. It also is the only tropicbird with a long black bar on the upperwing coverts. The white tail streamers can be up to sixteen inches long. Legs and feet are yellowish; toes have black webbing.

• **SONG** In flight, a piercing scream *keek* or *keck*, often rapidly



repeated. Call is a guttural squawk.

• **BEHAVIOR**

Solitary or in noisy pairs or small groups.

Ranges widely over oceans in nonbreeding season. Spots food from 50–100 feet above water, hovers, then makes direct dive. Eats small fish, crabs, and squid. Floats high in water with tail cocked upward. Attracted to ships, it may hover before landing in rigging. Comes farther inland than other tropicbirds.

• **BREEDING** Monogamous. Semicolonial.

• **NESTING** Incubation 40–42 days by both sexes, sometimes shorter period. Young altricial; first flight at 70–85 days; fed by both sexes. 1 brood per year.

• **POPULATION** Uncommon but regular in the Gulf Stream off North Carolina; rare and inconsistent on Dry Tortugas. Rare elsewhere on the Atlantic Coast to the Maritimes; one record in California.

• **BIRDHOUSES** Will nest in artificial in-ground chambers.

• **CONSERVATION** Vulnerable to introduced predators at nesting sites.

Similar Birds

RED-BILLED TROPICBIRD
Larger; mostly white crown; narrower black bars on upperparts; black eye stripe; black primaries and primary coverts; red bill
• juvenile has black eye stripe, usually meeting around nape; fine barring on upperparts; large black primary patch; yellow bill; lacks long streamers.

Flight Pattern

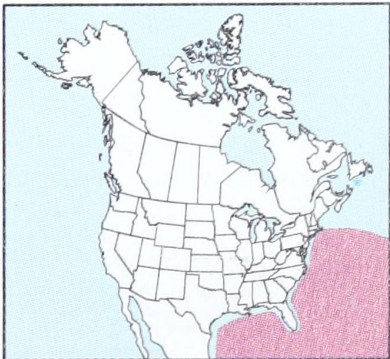
Buoyant graceful pigeonlike flight with fluttering wing strokes alternated with soaring glides; hovers briefly over prey or perch before dipping down to it.

Nest Identification

Shape

Location

No nest • on ground in ridges of cliffs, crevices, caves, or sheltered by grasses or bush • 1 whitish to pale buff egg, flecked with brownish and purple spots; ovoid, 2.28 x 1.6 inches.



Plumage Sexes similar	Habitat	Migration Migratory	Weight 15.3 ounces
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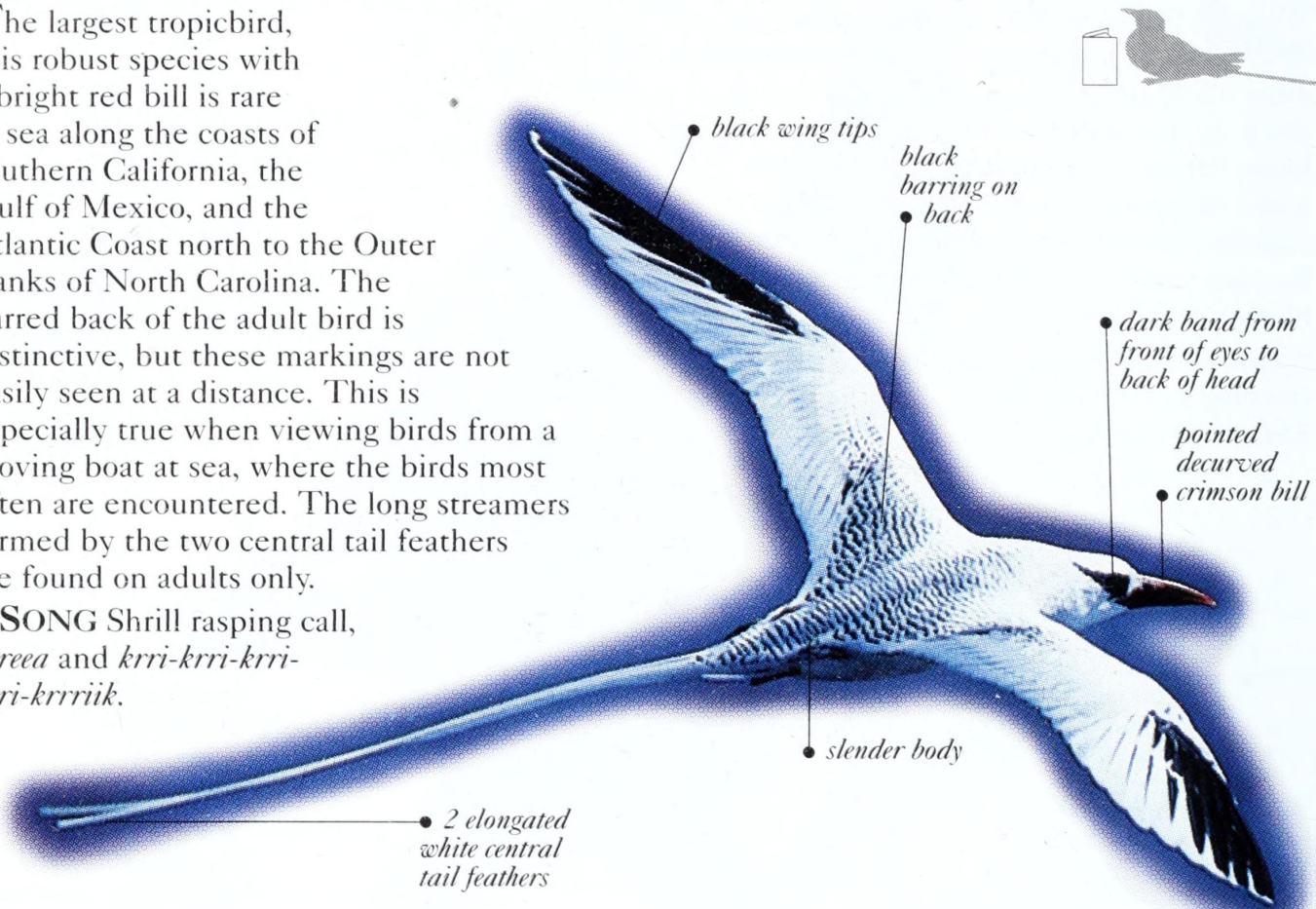
DATE _____ TIME _____ LOCATION _____

Family PHAETHONTIDAE	Species <i>Phaethon aethereus</i>	Length 30–44 inches	Wingspan 40–42 inches
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RED-BILLED TROPICBIRD

The largest tropicbird, this robust species with a bright red bill is rare at sea along the coasts of southern California, the Gulf of Mexico, and the Atlantic Coast north to the Outer Banks of North Carolina. The barred back of the adult bird is distinctive, but these markings are not easily seen at a distance. This is especially true when viewing birds from a moving boat at sea, where the birds most often are encountered. The long streamers formed by the two central tail feathers are found on adults only.

• **SONG** Shrill rasping call, *krreea* and *krri-krri-krri-krri-krriik*.



• **BEHAVIOR** Eats squid and fish. Plunge dives from air for prey, catching it in its bill, then swallowing it under water or on the surface. This bird rarely alights on the sea. Does not carry prey in mouth while in flight. Does not follow boats but may be attracted to them. Often seen circling a boat several times or sitting on water nearby before departing. Tropicbirds fly superbly but have difficulty walking on land, usually shuffling around with their breasts touching the rocks.

• **BREEDING** Monogamous. Colonial.

• **NESTING** Incubation 44–45 days by both sexes alternately. Altricial young leave nest 90–120 days after hatching.

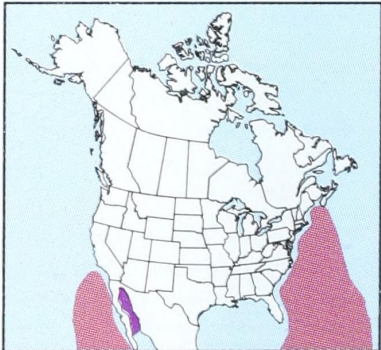
• **POPULATION** Rare to casual straggler to coastal waters of the southern United States. Common to fairly common on subtropical and tropical islands in the Pacific, south Atlantic, and Caribbean.



JUVENILE

Similar Birds

WHITE-TAILED TROPICBIRD
Adult lacks barring on upperparts; black bar across inner wing; yellow to orange bill.



Flight Pattern

Rapid pigeonlike direct flight with stiff shallow steady wing beats.

Nest Identification

Shape

Location

Uses no materials in nest • in cavity of cliffs or burrows • 1 red-brown or whitish buff blotched or spotted egg.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.7 pounds
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DATE _____ TIME _____ LOCATION _____

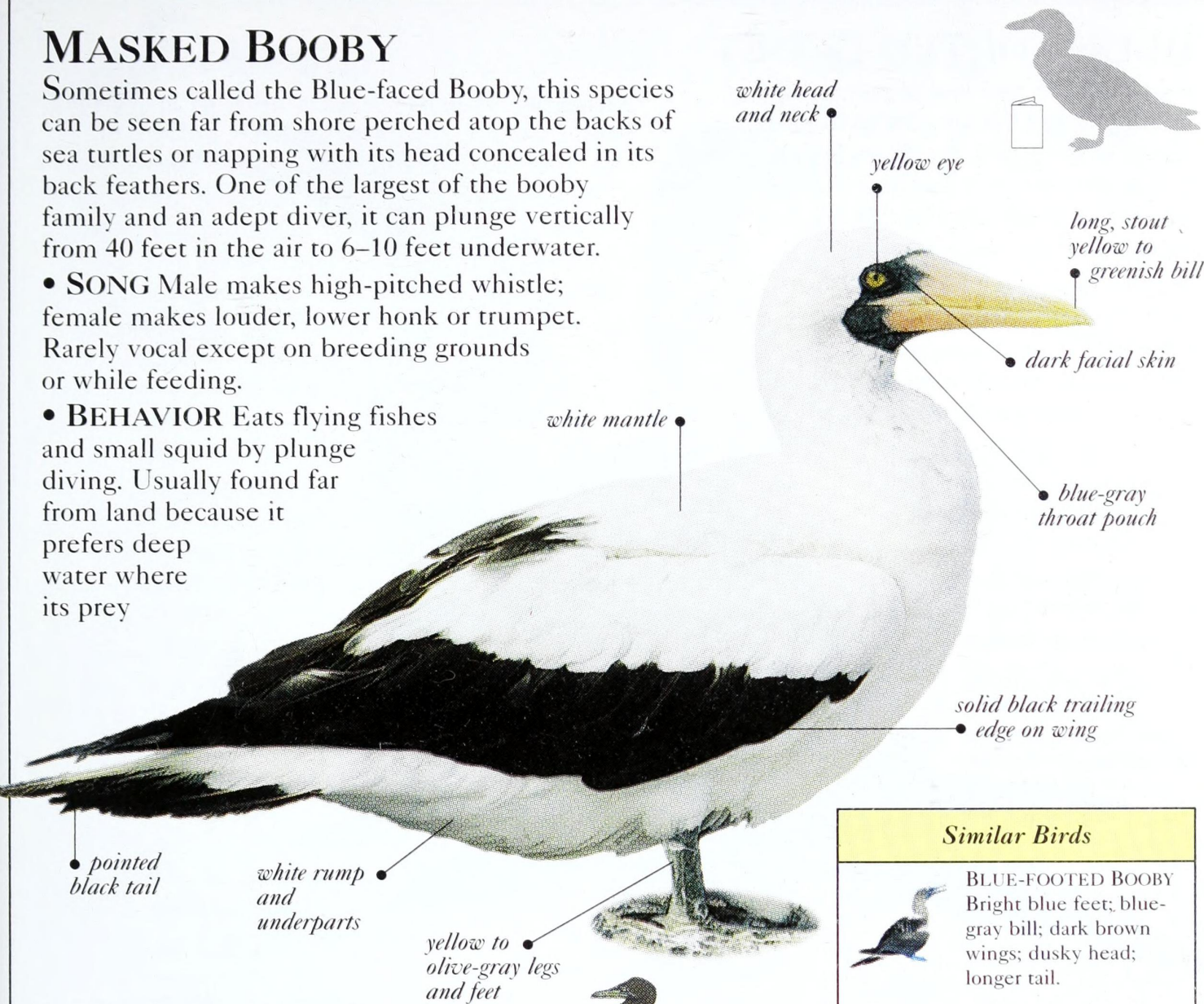
Family SULIDAE	Species <i>Sula dactylatra</i>	Length 26–34 inches	Wingspan 60–62 inches
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MASKED BOOBY

Sometimes called the Blue-faced Booby, this species can be seen far from shore perched atop the backs of sea turtles or napping with its head concealed in its back feathers. One of the largest of the booby family and an adept diver, it can plunge vertically from 40 feet in the air to 6–10 feet underwater.

• **SONG** Male makes high-pitched whistle; female makes louder, lower honk or trumpet. Rarely vocal except on breeding grounds or while feeding.

• **BEHAVIOR** Eats flying fishes and small squid by plunge diving. Usually found far from land because it prefers deep water where its prey



is more abundant. Diurnal, returning to roost in evening. Often pursued by frigatebirds attempting to steal a booby's catch.

• **BREEDING** Monogamous. Colonial.

• **NESTING** Incubation 38–49 days by both sexes. When second egg hatches, the older sibling attacks the younger and throws it out of nest. Altricial young remain in nest 109–151 days, fed by both sexes.

Flight Pattern

Alternates strong, rapid wing beats with glides when flying over ocean.

Nest Identification

Shape Location

• **POPULATION** Uncommon in the Gulf of Mexico; rare northward on the Atlantic Coast to the Outer Banks of North Carolina. Breeds on Florida's Dry Tortugas. Casual visitor to southern California.

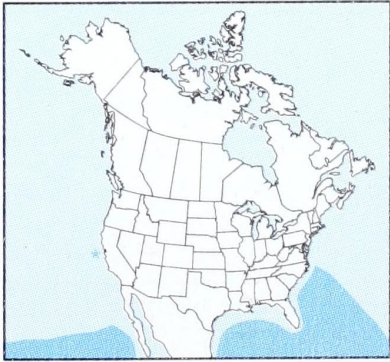
Slight rim of pebbles • on ground • built by both sexes • 1–2 chalky white eggs; oval, 2.5 inches long.



Similar Birds

BLUE-FOOTED BOOBY
Bright blue feet; blue-gray bill; dark brown wings; dusky head; longer tail.

NORTHERN GANNET
No black facial skin; pale blue bill; white tail; black wing tips
• juveniles have bluish gray bill; dark underwing with white axillaries; long tail
• eastern range.



Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 3.2 pounds
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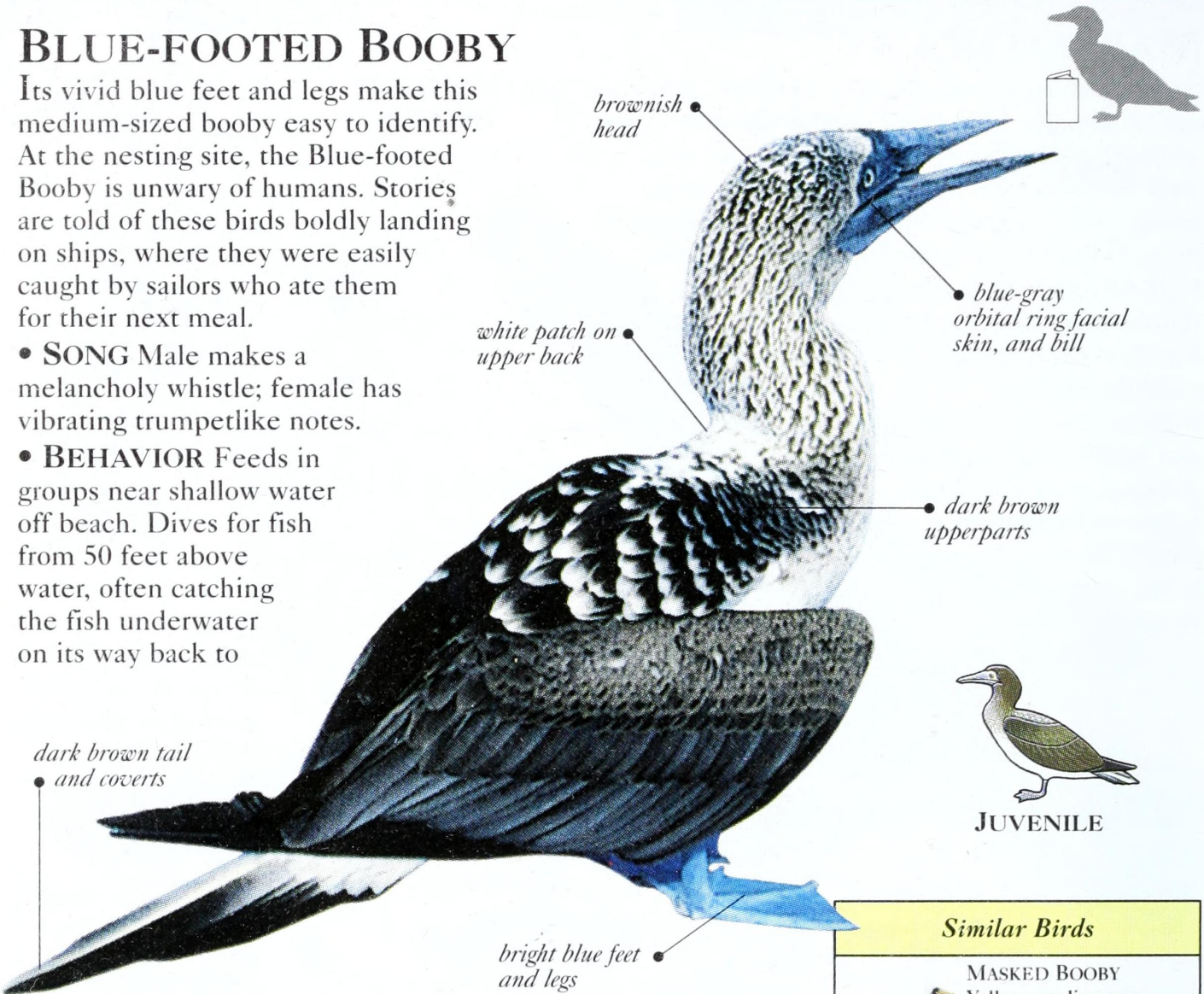
DATE _____ TIME _____ LOCATION _____

Family SULIDAE	Species <i>Sula nebouxii</i>	Length 32 inches	Wingspan 60–62 inches
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BLUE-FOOTED BOOBY

Its vivid blue feet and legs make this medium-sized booby easy to identify. At the nesting site, the Blue-footed Booby is unwary of humans. Stories are told of these birds boldly landing on ships, where they were easily caught by sailors who ate them for their next meal.

- **SONG** Male makes a melancholy whistle; female has vibrating trumpetlike notes.
- **BEHAVIOR** Feeds in groups near shallow water off beach. Dives for fish from 50 feet above water, often catching the fish underwater on its way back to



the surface. Often catches flying fish in the air and eats them whole. Mostly diurnal in warm waters usually not far offshore. Male’s courtship ritual includes stiff-bodied high “goose steps” around mate that show blue feet to greatest advantage.

- **BREEDING** Monogamous.
- **NESTING** Incubation 41 days by both sexes. First flight at 102 days. Not colonial but nests often close together.

Flight Pattern

Strong, moderately rapid wing beats interrupted by sailing glide; also powerful, deep wing beats.

Nest Identification

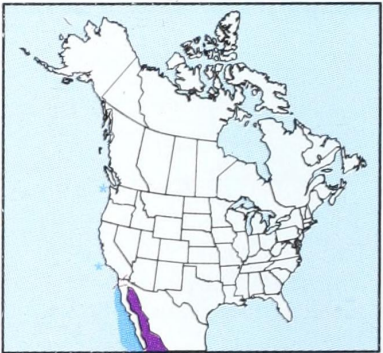
Shape Location

- **POPULATION** Rare to casual along southern Pacific Coast and inland in California to Salton Sea; irregular in Arizona; accidental in Washington and Texas.
- **CONSERVATION** Protected by federal law.

Similar Birds

MASKED BOOBY
Yellow to olive-gray feet; white on upper wings, head, neck, and upperparts; yellow bill.

BROWN BOOBY
Dark brown head, neck, and upperparts; yellow bill; yellow feet; smaller.



Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 2.8 pounds
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DATE _____ TIME _____ LOCATION _____

Family SULIDAE	Species <i>Sula leucogaster</i>	Length 26–29 inches	Wingspan 52–59 inches
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BROWN BOOBY

Because of its habit of landing aboard ships and not trying to escape, sailors nicknamed this bird “booby,” meaning “dunce” in Spanish. The Brown Booby is one of the most common boobies and prefers to feed and travel in large flocks. The female can be distinguished from the male by its yellow (rather than blue) orbital ring and yellow bill. Males of the subspecies *brewsteri*, rarely observed in North America, have white foreheads and whitish tan heads and necks. Juveniles have gray facial skin and underparts, and underwings washed with dusky brown.

• **SONG** Usually silent at sea. On breeding grounds, a harsh honking. Also gives harsh brays and a hoarse hissing whistle.

• **BEHAVIOR** Gregarious. Marine and pelagic but often seen from shore. Eats parrot fishes, mullets, flatfishes, and halfbeaks. Feeds inshore more often than other boobies by making shallow plunging dives from 30–50 feet

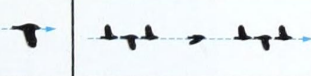
above the water. Prefers to perch rather than sit on the water and comes ashore at night to roost in trees, shrubs, wharfs, buildings, etc. Attracted to ships and will perch in their rigging.

• **BREEDING** Monogamous. Colonial.

• **NESTING** Incubation 40–47 days by both sexes. Altricial young stay in or near nest; fed by both sexes. First flight at 84–119 days. 1 brood per year.

• **POPULATION** Casual to rare in South Florida and Florida Keys, Gulf Coast, and Gulf of California. Accidental elsewhere. Wide range of nesting sites has kept population stable.

Flight Pattern



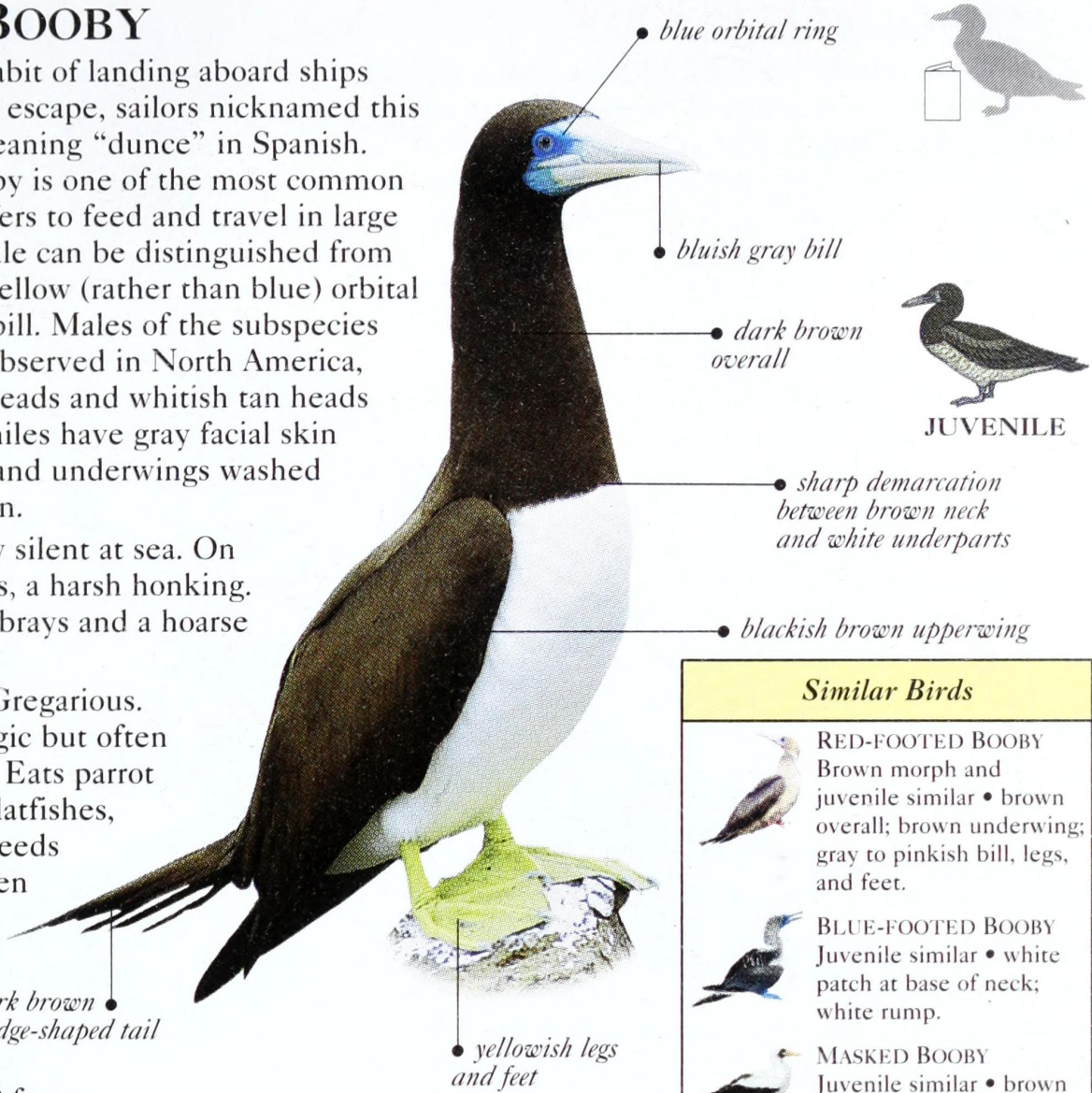
Strong direct flight, alternating with flapping and gliding, producing slightly undulating progression. Often flies low over water. Flocks sometimes fly in lines.

Nest Identification

Shape  Location 

Grass, twigs, and debris • on ground • 1-3 whitish to pale blue-green eggs with chalky coating, often nest stained; ovate to elliptical ovate, 2.4 x 1.6 inches.

• **CONSERVATION** Vulnerable to breeding colony disturbances as well as introduced predators.



Similar Birds



RED-FOOTED BOOBY
Brown morph and juvenile similar • brown overall; brown underwing; gray to pinkish bill, legs, and feet.



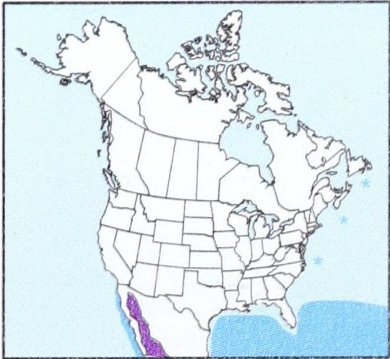
BLUE-FOOTED BOOBY
Juvenile similar • white patch at base of neck; white rump.



MASKED BOOBY
Juvenile similar • brown coloring extends only to throat; has complete white collar.



NORTHERN GANNET
Juvenile similar • larger; dark gray upperparts with light spots and spangling; grayish underparts • eastern range.



Plumage Sexes differ	Habitat  	Migration Nonmigratory	Weight 2.4 pounds
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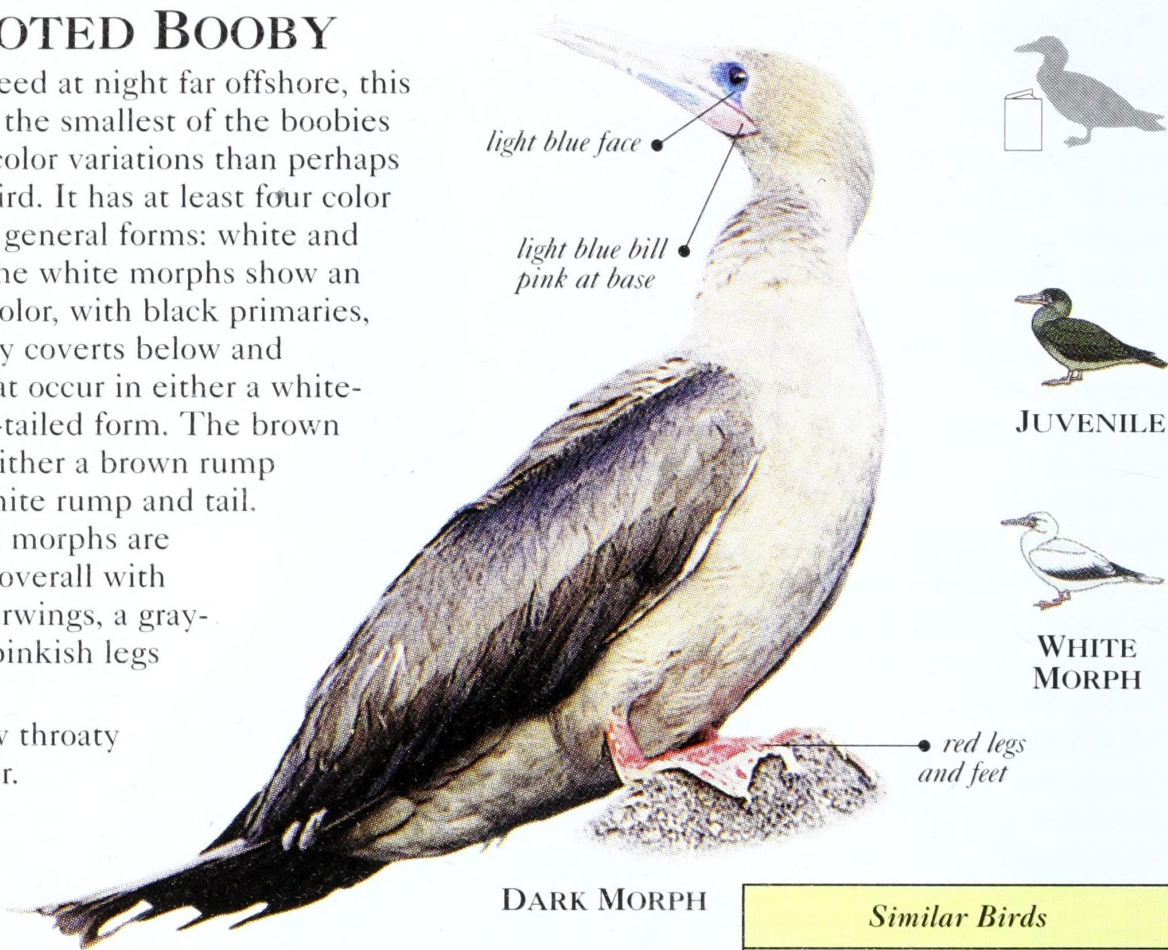
DATE _____ TIME _____ LOCATION _____

Family SULIDAE	Species <i>Sula sula</i>	Length 26–28 inches	Wingspan 53–60 inches
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RED-FOOTED BOOBY

Preferring to feed at night far offshore, this tropical bird is the smallest of the boobies and has more color variations than perhaps any other seabird. It has at least four color morphs in two general forms: white and gray-brown. The white morphs show an overall white color, with black primaries, median primary coverts below and secondaries that occur in either a white-tailed or black-tailed form. The brown morphs have either a brown rump and tail or a white rump and tail. Juveniles of all morphs are brownish gray overall with brownish underwings, a gray-blue bill, and pinkish legs and feet.

• **SONG** A low throaty braylike chatter.



- **BEHAVIOR** Gregarious. Seminocturnal and crepuscular. Highly pelagic and rarely seen from mainland. May forage several hundred miles from land. Eats fish and squid. Plunge-dives for most food in deep waters. Also catches flying fish in air. Attracted to ships and lands on them. Often feeds in large flocks and returns to land to roost at night.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 43–49 days by both sexes. Altricial young stay in or around nest 15 weeks; fed by both sexes. 1 brood per year.
- **POPULATION** Casual along the California coast, Gulf Coast, Dry Tortugas, and Florida. Accidental elsewhere on Atlantic coast.

Flight Pattern



Strong steady wing beats with glides. Graceful, agile; skims low over water. 5 or more may form line dipping up and down.

Nest Identification

Shape  Location 

• **CONSERVATION** Population reduced due to destruction of habitat (principally the trees they require for nesting) by land clearing, herding of goats, and tourism development.

Sticks and twigs • in trees, shrubs, or on thick grass tufts • built by both sexes; female does most of building while male gathers material • 1 chalky white egg; long elliptical or long to short subelliptical, generally broader at one end; 2.5 x 1.6 inches.

Similar Birds

 **BLUE-FOOTED BOOBY**
Bright blue feet; smaller; blue bill; white underparts; brown wings and mantle with white patches on back and neck; white axillars and wing linings
• juvenile dark overall with white neck patch.

 **NORTHERN GANNET**
Larger; white secondaries; dark gray feet and legs • juvenile speckled white
• eastern range.



Plumage Sexes similar	Habitat  	Migration Nonmigratory	Weight 2.1 pounds
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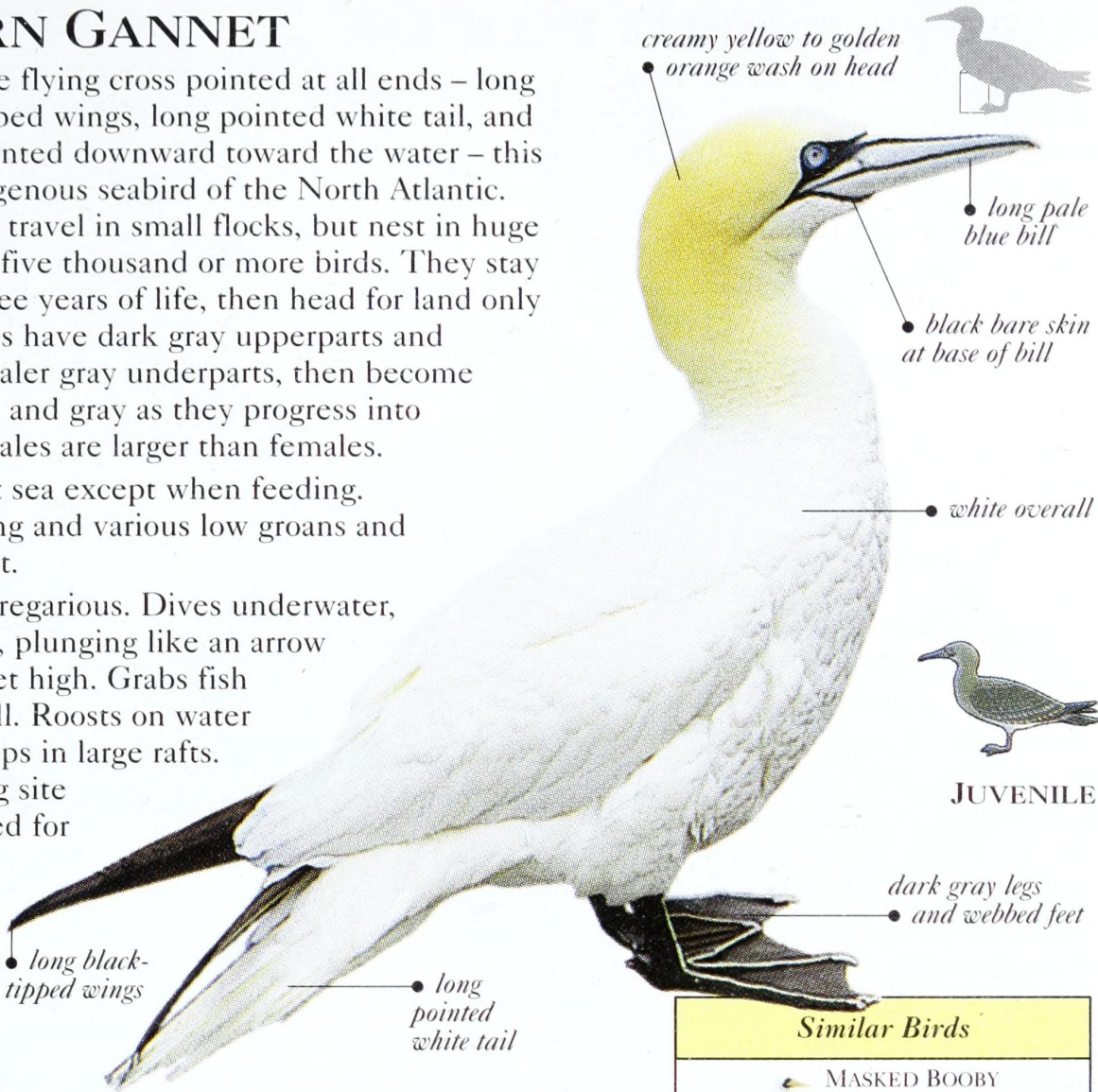
DATE _____ TIME _____ LOCATION _____

Family SULIDAE	Species <i>Morus bassanus</i>	Length 35–40 inches	Wingspan 65–71 inches
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NORTHERN GANNET

Like a large white flying cross pointed at all ends – long pointed black-tipped wings, long pointed white tail, and long bill often pointed downward toward the water – this is the largest indigenous seabird of the North Atlantic. Gannets feed and travel in small flocks, but nest in huge dense colonies of five thousand or more birds. They stay at sea the first three years of life, then head for land only to breed. Juveniles have dark gray upperparts and heavily spotted, paler gray underparts, then become pied black, white, and gray as they progress into adult plumage. Males are larger than females.

- **SONG** Silent at sea except when feeding. Clamorous honking and various low groans and clucks around nest.
- **BEHAVIOR** Gregarious. Dives underwater, as deep as 50 feet, plunging like an arrow from up to 100 feet high. Grabs fish and squid with bill. Roosts on water after feeding; sleeps in large rafts. Returns to nesting site annually; sites used for hundreds of years. Ranges primarily over continental shelf. Rarely pelagic over truly deep waters.
- **BREEDING** Monogamous; mates for life. Colonial. Mated pairs perform complex “dance” at nest, similar to that of albatross, in which they face each other, wings slightly raised and opened, tail raised and spread. This is followed by a repeated series of bows, bills raised and waved in air, more bows, and feigned caressing of each other’s breast.
- **NESTING** Incubation 42–44 days, by both sexes; male does more. Young stay in nest 95–107 days. Both parents feed by regurgitation. 1 brood per year.



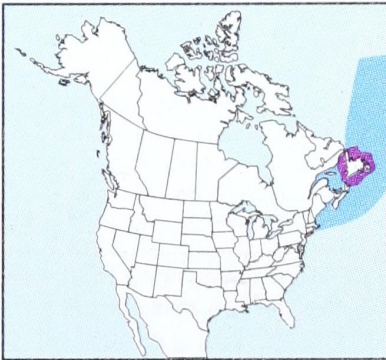
Similar Birds



MASKED BOOBY
Yellow bill; black facial skin; black tail; solid black edging (all flight feathers) on wings.



RED-FOOTED BOOBY
White morph • smaller; white or black tail; all flight feathers and primary coverts are black; coral-red feet.



Flight Pattern

Alternates rapid wing beats with short glides at frequent intervals. Soars to great heights. Glides low in strong winds.

Nest Identification

Shape Location

- **POPULATION** Common. Often seen from shore in migration and winter. Rare to casual on Great Lakes in fall.
- **CONSERVATION** Vulnerable to oil spills, human disturbance at nesting colonies.

Pile of seaweed and refuse • on ridges of cliff • 1 chalky light blue egg becoming nest stained; ovate to elliptical ovate; 3.0 x 1.8 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 6.5 pounds
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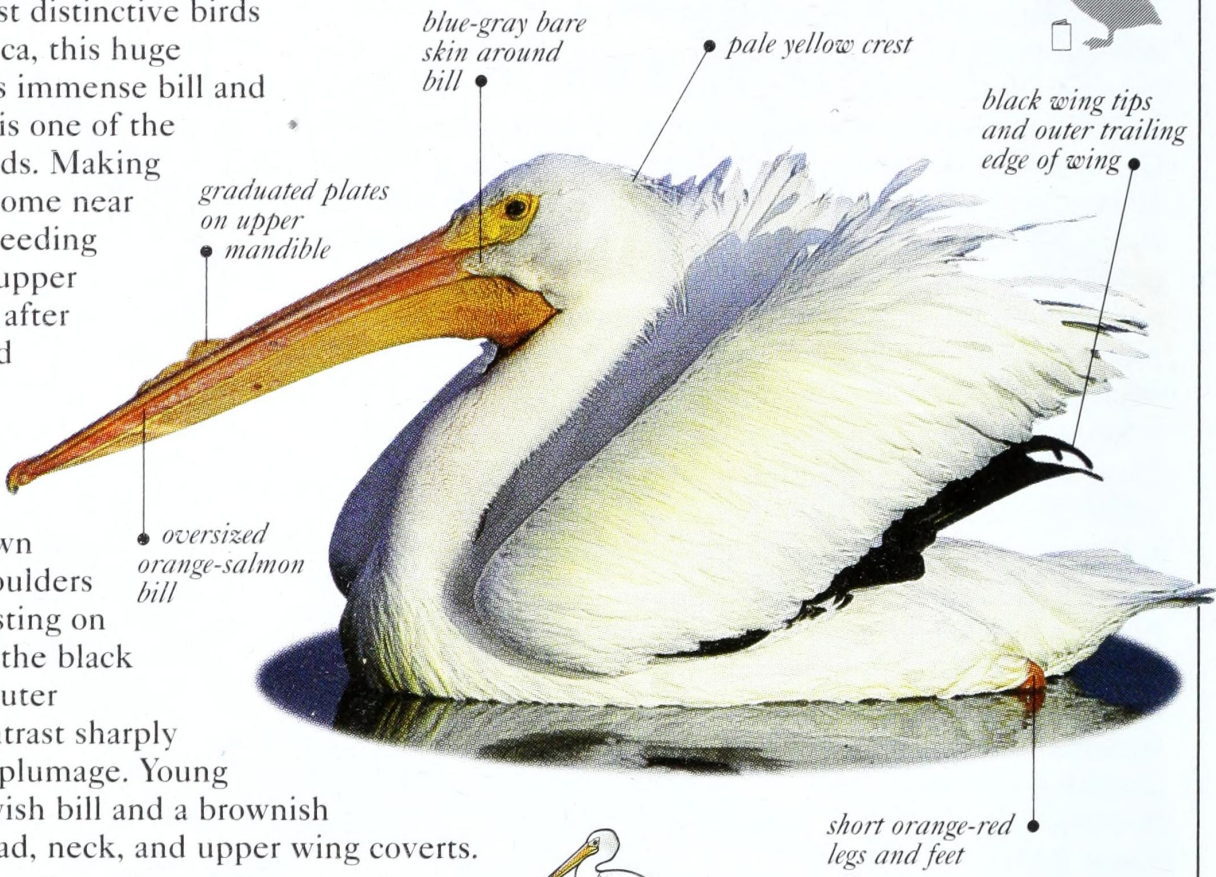
DATE _____ TIME _____ LOCATION _____

Family PELECANIDAE	Species <i>Pelecanus erythrorhynchos</i>	Length 60–63 inches	Wingspan 96–110 inches
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AMERICAN WHITE PELICAN

One of the most distinctive birds in North America, this huge pelican, with its immense bill and vast wingspan, is one of the largest waterbirds. Making their summer home near inland lakes, breeding birds shed the upper mandible plate after the eggs are laid and show a dull grayish crown and nape. In flight the head is drawn back on the shoulders with the bill resting on the breast, and the black primaries and outer secondaries contrast sharply with the white plumage. Young have a dull grayish bill and a brownish wash on the head, neck, and upper wing coverts.

- **SONG** Mostly silent. On nesting grounds guttural croaks.
- **BEHAVIOR** Entire flock may work communally to catch fish by “herding” them into shallow water or an enclosed area, then scooping the fish out of the water with pouches that can hold up to 3 gallons of water. Eats fish of little or no commercial value.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 29–36 days by both sexes. Young stay in nest 17–28 days; fed by both sexes. Gather in groups called pods after fledging and continue to be fed by adults. First flight at 9–10 weeks. 1 brood per year.
- **POPULATION** Fairly common to common. Breeds in western lakes; winters in southwest and Gulf Coast states. Casual wanderer in migration.



WINTER PLUMAGE

Flight Pattern

Strong slow deep wing beats. Soars high on thermals. Flies in straight line or V formation.

Nest Identification

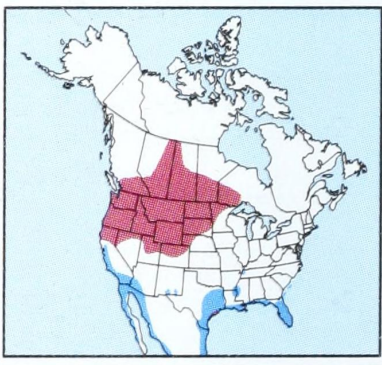
Shape Location

• **CONSERVATION** Some decrease due to habitat loss and pesticide poisoning; however, has increased since 1970s. Despite legal protection most deaths due to shooting.

Similar Birds

WOOD STORK
Black trailing edge to wing (all flight feathers); black tail; dark head and bill; long legs trail beyond tail in flight.

BROWN PELICAN
Gray-brown upperparts; dark wings; darker bill; plunge dives for fish while flying.



Plumage Sexes similar	Habitat	Migration Migratory	Weight 15.4 pounds
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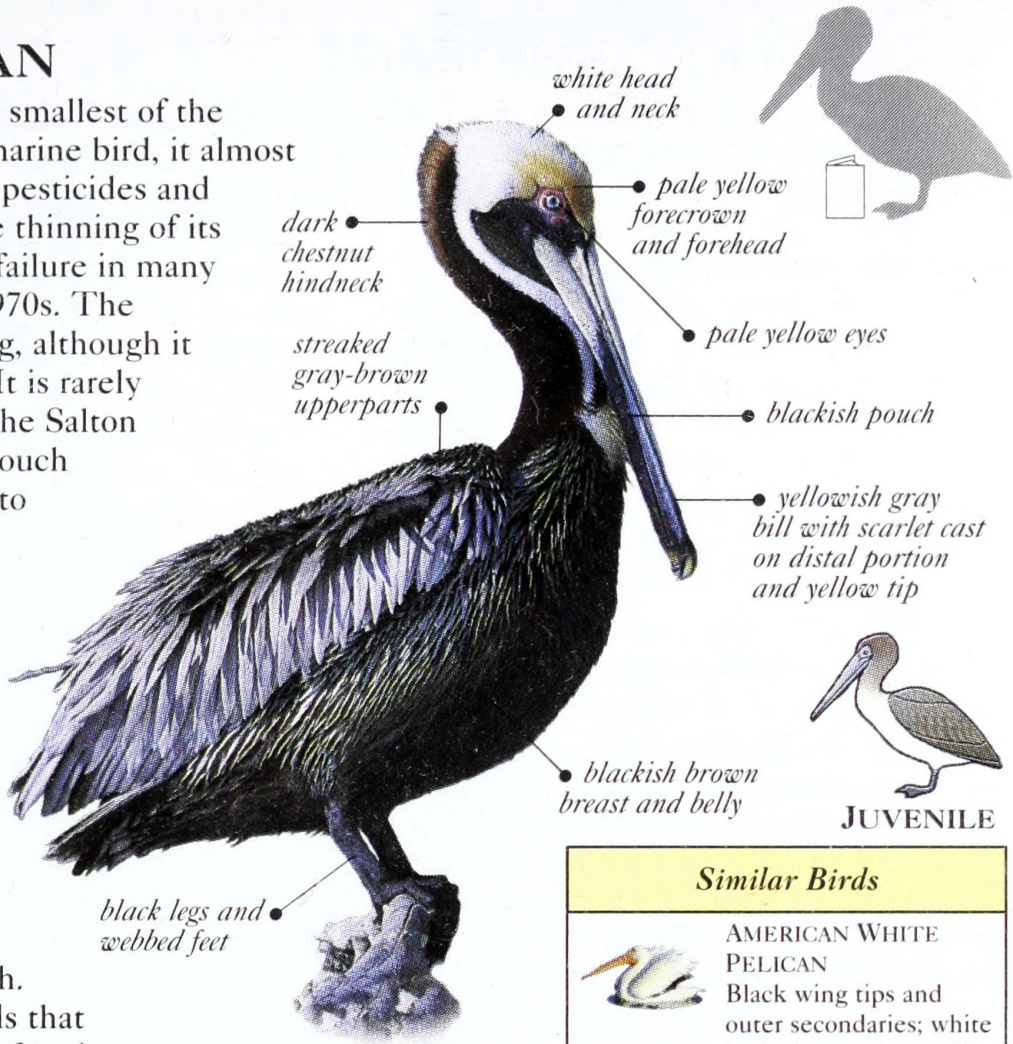
DATE _____ TIME _____ LOCATION _____

Family PELECANIDAE	Species <i>Pelecanus occidentalis</i>	Length 48–50 inches	Wingspan 78–84 inches
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BROWN PELICAN

Louisiana's state bird is the smallest of the world's pelicans. Strictly a marine bird, it almost faced extinction because of pesticides and hydrocarbons that led to the thinning of its eggshells and reproductive failure in many colonies in the 1960s and 1970s. The population is now recovering, although it is still listed as threatened. It is rarely seen inland except around the Salton Sea. The color of its gular pouch varies from red in the West to blackish in the East. Young birds are brownish with a whitish belly.

- **SONG** Adults are silent except for occasional low croaking. Young make snakelike hiss.
- **BEHAVIOR** Coastal and pelagic. Eats fish taken near the surface by plunge-diving from air and scooping up prey with pouch. Sometimes attended by gulls that attempt to steal the catch before it can be swallowed. Gregarious. Often flies in long lines close to the water, with each bird closely following the flight path of the one ahead and all flapping and gliding in unison.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 28–30 days by both sexes. Young begin to walk out of nest at 35 days if nest site is on ground, but do not leave nest until 63–80 days, when able to fly, if nest is elevated in shrub or tree. Tended and fed by both sexes. 1 brood per year.
- **POPULATION** Fairly common to common on Pacific Coast from central California southward, on the Atlantic Coast from Maryland southward around the tip of Florida, and westward along the entire Gulf Coast. Wanders north along coast in spring and summer. Rare inland, but common in Salton Sea.



Similar Birds



AMERICAN WHITE PELICAN
Black wing tips and outer secondaries; white body; huge salmon bill; orange-red legs and feet; does not plunge dive for food.



NORTHERN GANNET
Juvenile has dark gray upperparts with pale speckling; paler underparts; pointed, straight pale bill; pointed tail with white U patch at base; long dark-tipped wings
• Atlantic and Gulf Coast range.

Flight Pattern

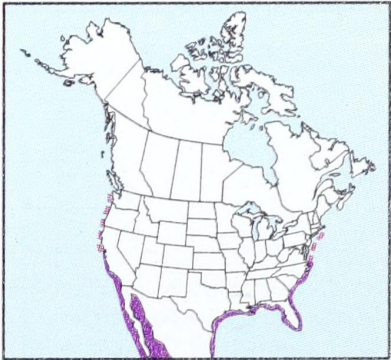


Graceful, powerful flight with deliberate wing beats alternating with short glides. Flies in straight line formation.

Nest Identification

Shape  Location 

Sticks, reeds, and grass • in vegetation 6–20 feet high or on ground built up 4–10 inches • built by female with materials gathered by male • 2–4 white eggs often nest-stained; long oval, 2.8 x 1.8 inches.



Plumage Sexes similar	Habitat 	Migration Migratory	Weight 8.2 pounds
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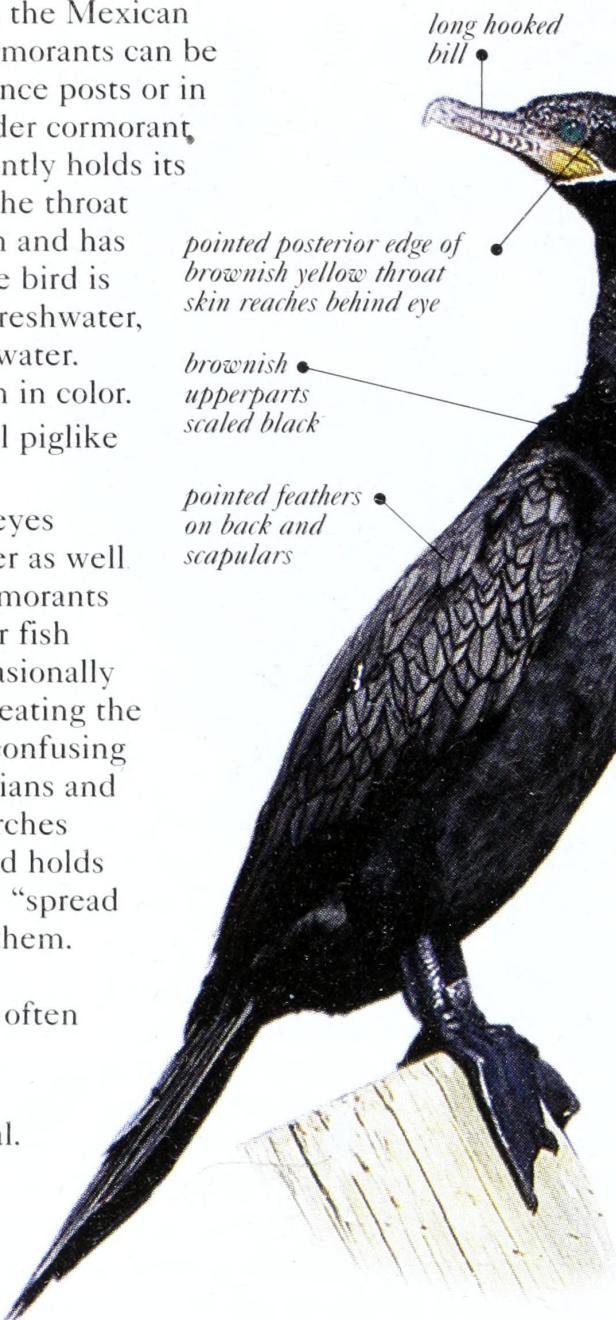
DATE _____ TIME _____ LOCATION _____

Family PHALACROCORACIDAE	Species <i>Phalacrocorax brasilianus</i>	Length 23–29 inches	Wingspan 40 inches
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NEOTROPIC CORMORANT

Primarily found along the Mexican border, Neotropic Cormorants can be spotted perched on fence posts or in trees. This small slender cormorant, with a long tail frequently holds its neck in an S-shape. The throat pouch is yellow-brown and has a white edge when the bird is breeding. It inhabits freshwater, brackish water, or saltwater. Juveniles are brownish in color.

- **SONG** Low guttural piglike grunts.
- **BEHAVIOR** With eyes adapted for underwater as well as aerial vision, all cormorants swim well and dive for fish from the surface. Occasionally hunts cooperatively, beating the water with its wings, confusing fish. Also eats amphibians and crustaceans. Often perches upon leaving water and holds wings and tail open in “spread eagle” fashion to dry them. Unlike other North American cormorants, often perches on wires.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 25–30 days by both sexes. Altricial young fed by both sexes; swim and dive at 8 weeks, feed until 11 weeks, and become independent at 12 weeks. 1 brood per year.



JUVENILE

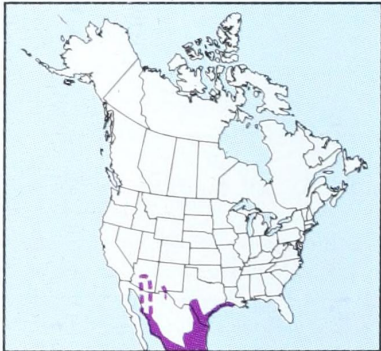
Similar Birds



DOUBLE-CRESTED CORMORANT
Larger; heavier looking; shorter tail; rounded tips on scapular and back feathers; yellow-orange throat pouch; green sheen on head, neck, and underparts.



BRANDT'S CORMORANT
Bluish facial and throat skin • West Coast range.



Flight Pattern

Typically flies fairly low over water with strong rapid wing beats.

• **POPULATION**
Widespread in Mexico; rare to casual in states along Mexican border from southern California to New Mexico; fairly common in southern Texas. Increasing and spreading north inland.

Nest Identification

Shape	Location
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Made of sticks with depression at center • lined with twigs and grass • built by both sexes • 2–6 (usually 4) chalky bluish eggs, soon becoming nest-stained; oval to long subelliptical.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 2.8 pounds
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DATE _____ TIME _____ LOCATION _____

Family PHALACROCORACIDAE	Species <i>Phalacrocorax auritus</i>	Length 32 inches	Wingspan 52 inches
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DOUBLE-CRESTED CORMORANT

The most widespread cormorant in North America appears blackish overall from a distance, but may appear to have a green sheen in certain lighting. During breeding season it shows two small tufts of feathers; they are black in eastern birds, but larger and mostly white in western birds. Its wings are not completely waterproof, so upon leaving the water the bird often perches on exposed objects with its wings held out to catch the sun's rays and dry its feathers. This cormorant swims low in the water with its bill tilted slightly upward. In flight it has a distinct crook in its neck. Immature birds are brown with white face, foreneck, and breast.

• **SONG** Deep guttural grunt.

• **BEHAVIOR** Gregarious.

Dives for fish, crustaceans, and amphibians from surface. Excellent diver, using feet for propulsion. Able to stay at 5–25 feet below surface for 30–70 seconds.

• **BREEDING**

Monogamous. Colonial.

• **NESTING** Incubation

28–30 days by both sexes. Altricial young may leave nest at 21–28 days but may return to be fed by both sexes. First flight at 35–42 days. Independent at 63–70 days. 1 brood per year.

• **POPULATION** Common. Fluctuates because of persecution at nesting colonies, although increasing and expanding range, particularly in interior, in last 2 decades of the 20th century.

• **CONSERVATION** Often killed by fishermen who believe birds compete with them. Many populations hit hard, especially on California coast, in 1960s and 1970s by DDT, causing reproductive failures.

Flight Pattern

Strong powerful direct flight. Sometimes soars briefly on thermals. Groups fly in straight line or V formation.

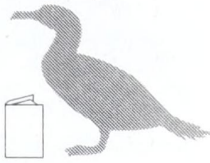
Nest Identification

Shape

Location

In trees made of sticks and debris and lined with leafy twigs and grass • on rocks often made of seaweed and trash gathered at water's edge • near water • built by female • 2 nest-stained bluish white eggs; long subelliptical, 2.4 x 1.5 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 4.0 pounds
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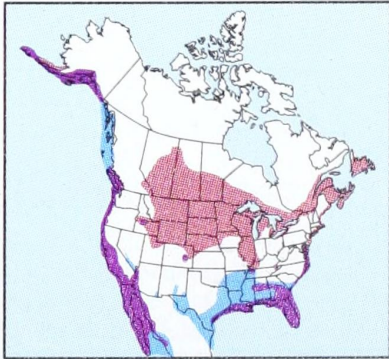
JUVENILE

Similar Birds

NEOTROPIC CORMORANT
Smaller; longer tail; posterior edge of gular skin often pointed with whitish border.

BRANDT'S CORMORANT
Strictly coastal and pelagic western range; dark face; blue throat patch with buff border; shorter tail; flies with head and neck held straight.

GREAT CORMORANT
Larger throat pouch bordered by white feathers; white cheeks and flank patches (breeding) • East Coast range.



DATE _____ TIME _____ LOCATION _____

Family PHALACROCORACIDAE	Species <i>Phalacrocorax carbo</i>	Length 35–40 inches	Wingspan 63 inches
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GREAT CORMORANT

The largest North American cormorant is able to carry water in its throat pouch to pour over its chicks when they have been exposed to high temperatures. A proficient swimmer and diver, this bird has been found as deep as a hundred feet below the surface. Its large size, large bill, pale yellow chin, and white throat patch distinguish it from the Double-crested Cormorant, the only other cormorant sharing its northern Atlantic range. In breeding season short white plumes appear on the side of the neck, and white patches are visible on its flanks while in flight. Juveniles have brown upperparts and a white belly.

- **SONG** Usually silent. Low throaty groans on breeding grounds.
- **BEHAVIOR** Excellent swimmer. Rides low in water, holding bill slightly angled above horizontal; uses webbed feet to swim. Dives for fish and crustaceans. When perched wet, holds wings in spread eagle position to dry.
- **BREEDING** Monogamous. Colonial. Breeds on cliffs or rocks.
- **NESTING** Incubation 28–31 days by both sexes. Altricial young stay in nest 50 days. Fed by both sexes. First flight at 50 days. Fledged young may return to nest at night until they achieve independence in 30–40 more days. 1 brood per year.
- **POPULATION** Fairly common. Increased dramatically; range has spread southward. Thought to be limited by interactions with more numerous and well-established Double-crested Cormorant. Winters in small numbers from

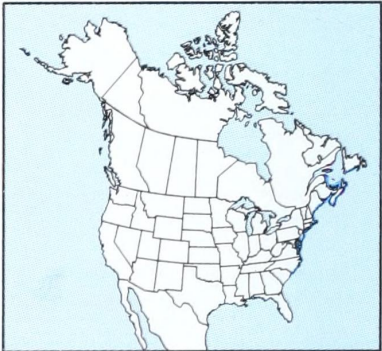


Similar Birds

DOUBLE-CRESTED CORMORANT
Smaller; orange throat patch; no flank patches
• juveniles have slimmer bill, deep orange facial skin, pale breast and darker belly.

Maritimes south to South Carolina; rare farther south.

- **CONSERVATION** Vulnerable to disturbance at colonial nesting sites as well as the pollution of its marine environment.



Flight Pattern		
Strong direct flight with steady wing beats, but slow to reach full flight speed. Flies in V or straight line formation.		
Nest Identification		
Shape	Location	

Made of twigs, seaweed, and bits of refuse • lined with grasses and moss • on ground in moderately elevated area • built by both sexes • 3–5 pale blue-green eggs, often nest-stained; long oval, 2.6 inches long.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 5.0 pounds
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DATE _____ TIME _____ LOCATION _____

Family ANHINGIDAE	Species <i>Anhinga anhinga</i>	Length 35 inches	Wingspan 45–48 inches
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ANHINGA

Although clumsy on perches and slow on the ground, the Anhinga is a graceful flier capable of soaring to great heights. It's also called the snakebird because of its long thin neck and small narrow head, which appears serpentine when this bird swims with its body submerged to the neck. Water turkey, its other common name, comes from the long buff-tipped tail.

- **SONG** Mostly silent. Low grunt similar to that of the cormorant. When quarreling makes distinct rapid clicking sound, *guk-guk-guk-guk-guk*.
- **BEHAVIOR** Swims underwater and uses sharply pointed bill to spear fish. Eats small to

long fanlike tail with buff terminal band

medium freshwater fish, frogs, water snakes, and leeches. Also known to take goldfish from outdoor ponds. Spends much time perched after swimming with wings and tail spread out to dry.

- **BREEDING** Monogamous. Usually colonial, often with egrets and herons. Bare facial skin and eye of male become blue-green and lacy black-and-white plumes appear on head and neck in breeding condition.
- **NESTING** Incubation 25–29 days by both sexes. Fed by both sexes. Altricial young will jump out of nest after 14 days if disturbed. 1 brood per year.
- **POPULATION** Fairly common to common in breeding

range. Casual wanderer north of breeding range.

- **CONSERVATION** In the past often killed by fishermen fearing competition from the fishing abilities of this bird.

Flight Pattern



Strong graceful direct flight. Often soars like a raptor.

Nest Identification

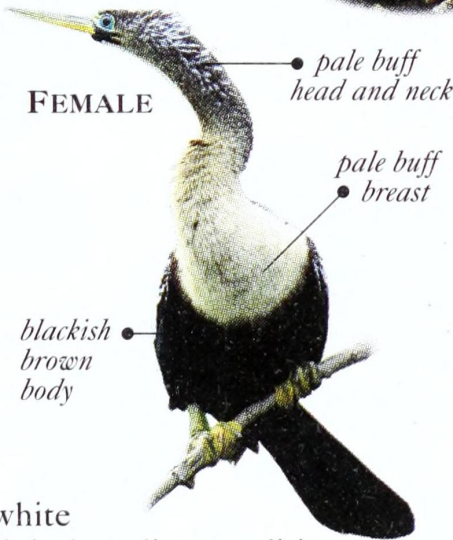
Shape 

Location 

Sticks • often lined with grass and leaves • built by female; male sometimes gathers materials • sometimes uses nest of Snowy Egret and Little Blue Heron • 2–5 white to pale blue eggs that become nest-stained; 2.1 inches long.



MALE



FEMALE

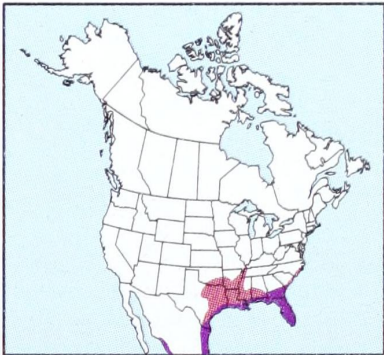
Similar Birds



NEOTROPIC CORMORANT
Brownish yellow facial and throat skin; blackish overall with green sheen; browner upperparts scaled with black; shorter thicker neck; hooked bill; swims on water's surface between dives.



DOUBLE-CRESTED CORMORANT
Larger; heavier; shorter thicker neck; shorter tail; yellow-orange throat pouch; hooked bill; swims on water's surface between dives.



Plumage Sexes differ	Habitat 	Migration Most do not migrate	Weight 2.7 pounds
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DATE _____ TIME _____ LOCATION _____

Family FREGATIDAE	Species <i>Fregata magnificens</i>	Length 37–41 inches	Wingspan 82–94 inches
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MAGNIFICENT FRIGATEBIRD

The male has a most striking courtship display when he inflates his throat sac into a huge brilliant red balloon. In flight it looks almost sinister with its black plumage, long thin crooked wings, and deeply forked tail often folded into a point. Juveniles are black without gloss and have a white head, neck, sides, breast, and belly. Even when not nesting, flocks of these birds often gather at their permanent roosts in treetops, or on high cliffs.

• **SONG** Clacks bill; nasal *kack* or *ka-ack*; soft chipping at nesting grounds. Silent at sea.

• **BEHAVIOR** Soars over sea to find food.

Dives for prey and catches it in bill from surface. Eats fish, crustaceans, and jellyfish. Attacks other large seabirds in flight until they drop or disgorge their catch, which the frigatebird then catches in midair. Roosts communally and is gregarious.

• **BREEDING**

Monogamous. Colonial.

• **NESTING** Incubation

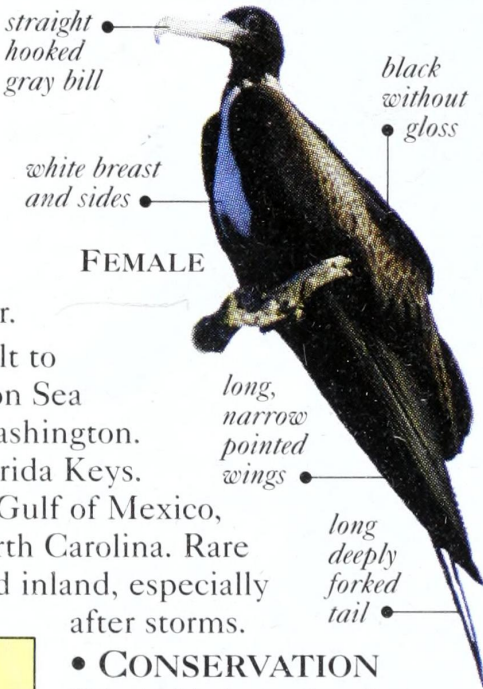
40–50 days by both sexes.

Fed by both sexes. First flight at 20–24 weeks. Young never left unguarded because other birds in colony may eat eggs and hatchlings. Most females do not breed every year.

• **POPULATION** Total difficult to monitor. Rare to casual on Salton Sea and along California coast to Washington. Breeds on Dry Tortugas off Florida Keys. Fairly common to casual along Gulf of Mexico, Florida coasts, and north to North Carolina. Rare straggler north to Maritimes and inland, especially after storms.

• **CONSERVATION**

Frigatebirds are legally protected, but they are still killed in the nest by local people, who hunt at night with flashlights and clubs. Some years no young survive.



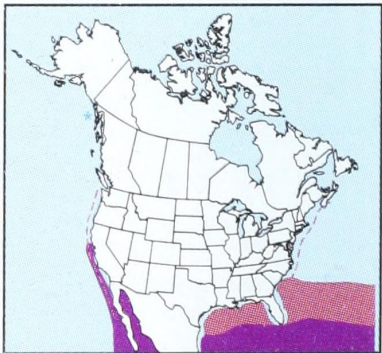
Similar Birds



♂ GREAT FRIGATEBIRD Male has pale brownish alar bar; scalloped pale grayish axillars; green gloss on head and back



• female has gray-white throat, breast, and upper belly; red orbital ring; broader black belly patch • juvenile has white head, neck, and breast; neck and head tinged with rust-brown.



Flight Pattern



Very high effortless soaring flight. Extremely graceful and buoyant in the air.

Nest Identification

Shape  Location  

Made of sticks, twigs, grass, and reeds • in mangroves, trees, or bushes, 2–20 feet above ground • built by female with materials gathered by male, who often steals from neighbors' nests • 1 white egg; rarely 2.

Plumage Sexes differ	Habitat 	Migration Nonmigratory	Weight 2.8 pounds
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Family FREGATIDAE	Species <i>Fregata ariel</i>	Length 28–32 inches	Wingspan 69–76 inches
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LESSER FRIGATEBIRD

The Lesser Frigatebird, a native of the southern oceans and the smallest of the Fregatidae family, has been recorded only once in North America. It is perhaps the easiest of all the frigatebirds to identify, at least while it is in flight, because both adults and juveniles have a white “spur” in the axillaries that extends onto the black underwing. The spur is buff colored on females.

- **SONG** Usually silent. At nest makes crackling noises.
- **BEHAVIOR** Eats fish, crustaceans, and jellyfish. Has been known to follow ships. Soars effortlessly for extended periods. Acrobatically chases other seabirds to steal food from them.
- **BREEDING** Monogamous; colonial.

- **NESTING** Incubation 40–50 days by both sexes. Young altricial; first flight at 6 months. Fed by both sexes. This species nests only once every 2 years because its young grow slowly.
- **POPULATION** Recorded as accidental in Maine resulting from a tropical storm that carried

this nonmigratory species north. It is common around its breeding areas in tropical and subtropical oceans.

- **CONSERVATION** Despite legal protection, frigatebirds are still killed in their breeding range by local inhabitants.



Similar Birds

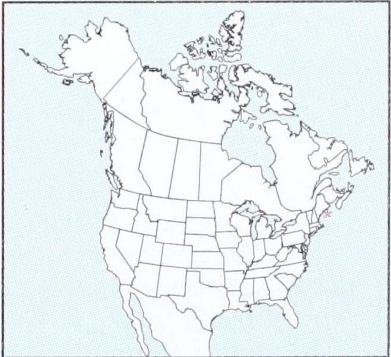


♂



♀

MAGNIFICENT FRIGATEBIRD
Larger; entirely black axillaries • male lacks white on underparts • female lacks white nape collar.



Flight Pattern



Soars effortlessly for extended periods.

Nest Identification

Shape  Location  

Sticks • in low tree or mangrove shrubs • 1–2 white eggs.

Plumage Sexes differ	Habitat  	Migration Nonmigratory	Weight 1.7 pounds
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DATE _____ TIME _____ LOCATION _____

Family ARDEIDAE	Species <i>Botaurus lentiginosus</i>	Length 23 inches	Wingspan 42–50 inches
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AMERICAN BITTERN

When it senses danger, the American Bittern hides by standing motionless with its bill pointed upward and its body tightly contracted. Thus it can be mistaken for a wooden stake in the marshes, saltwater and freshwater bogs, and wetland ponds it inhabits. The dark and light vertical streaks blend with shadows and highlights cast by surrounding vegetation, so the bird often goes unnoticed even from a few feet away. In flight the somewhat pointed dark outer wings contrast sharply with the inner wings and body.

- **SONG** *Oonk-a-lunk* or *punk-er-lunk*, often heard at dusk; it is one of the strangest sounds produced by any bird; sounds like someone driving a stake into the mud with a wooden mallet.
- **BEHAVIOR** Stands motionless, often hidden by marsh vegetation, on ground or in water to search for prey. Eats frogs, small eels, small fish, small snakes, salamanders, crayfish, small rodents, and water bugs.
- **BREEDING** May be polygamous. Solitary nester.
- **NESTING** Incubation 24–29 days by female. Young stay in nest 14 days. Fed by both parents. 1 brood per year.
- **POPULATION** Fairly common. Declining in the South from marshland drainage.
- **CONSERVATION** Protected by law. Wetland conservation is critical for this species.

JUVENILE

Flight Pattern

Strong direct flight with deep rapid wing beats.

Nest Identification

Shape	Location
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Grasses, reeds, and cattails • lined with fine grasses • on dense marsh ground, dry ground above water, or mud in tall vegetation • built by female • 2–7 pale brown to olive-buff eggs, 1.9 inches long.

Similar Birds

	LEAST BITTERN Much smaller; black crown and back; shows buff wing patches in flight.
	YELLOW-CROWNED NIGHT-HERON
	BLACK-CROWNED NIGHT-HERON Juveniles have more heavily spotted upperparts; lack black mustache lines on face.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.6 pounds
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Family ARDEIDAE	Species <i>Ixobrychus exilis</i>	Length 11–14 inches	Wingspan 16–18 inches
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LEAST BITTERN

This shy bird of the marshes is the smallest heron in North America. Because of the thick vegetation it frequents and its retiring nature, it often goes unnoticed and is probably more common than reported. Its small size and buff inner wing patches seen in flight quickly separate it from all other species. Adult females have a dark brown crown, back, and tail; juveniles are similar but more heavily streaked.

- **SONG** Call is series of harsh *kek* notes. Song is softer *ku* notes, somewhat dovelike.
- **BEHAVIOR** Shy secretive denizen of the marsh. Seldom seen or heard. When approached closely often freezes in place with neck stretched upward, bill pointed skyward, and body compressed. May sway back and forth with rhythm of surrounding vegetation to help blend into background. When flushed, flies weakly yet migrates long distances.
- **BREEDING** Monogamous. Solitary to loose colonies.
- **NESTING** Incubation 17–20 days by both sexes. Young stay in nest 25 days. Fed by both sexes. 1–2 broods per year.

Flight Pattern



Weak direct flight with slow labored wing beats.

Nest Identification

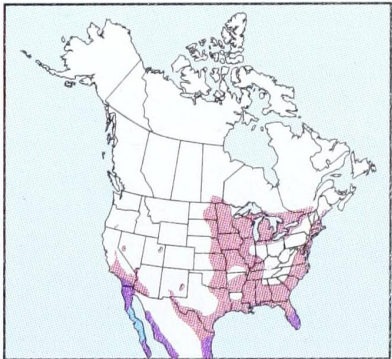
Shape  Location 



Similar Birds



GREEN HERON
Larger; lacks buff coloration and wing patches in flight.



- **POPULATION** Thought to be declining because of habitat loss, though still abundant in parts of North America.
- **CONSERVATION** Neotropical migrant. Conservation of wetlands key to population success.

Platform • bent marsh vegetation with sticks and grass on top • well concealed in marsh growth, near or over water, on ground, or in low shrub • built by both sexes • 2–7 pale green or blue eggs; elliptical, 1.2 inches long.

Plumage Sexes differ	Habitat 	Migration Migratory	Weight 3.0 ounces
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DATE _____ TIME _____ LOCATION _____

Family ARDEIDAE	Species <i>Ardea herodias</i>	Length 46–52 inches	Wingspan 77–82 inches
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GREAT BLUE HERON

Often called “crane” or “blue crane” by locals, the Great Blue Heron is the largest, most widespread, and best-known heron in North America. Its size, long yellowish bill, and mostly bluish gray body readily distinguish it. In the breeding season several long black occipital plumes adorn the back of the crown. In south Florida a paler

white-headed form was formerly considered a separate species called Ward's or Wurdemann's Heron. An all white morph with yellowish legs found in southern Florida is called the Great White Heron and formerly was also considered a separate species.

- **SONG** Mostly silent except at colonies, where it makes series of squawks and low croaks.
- **BEHAVIOR** In flight the long neck is folded back into a compact S-shape typical of other herons and egrets, and the long legs trail far out behind the short dark tail. Feeds by standing still in water for long periods and grabbing fish and other animals that come within range of a lightning thrust of its daggerlike bill, or by walking slowly along waterways or through marshy vegetation or grassy fields.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 25–30 days by both sexes. Young remain in nest 65–90 days. Fed by both sexes. 1 brood per year in the North, 2 per year in the South.

Flight Pattern

Direct flight with slow steady wing beats.

Nest Identification

Shape

Location

- **POPULATION** Stable, common, and widespread.
- **CONSERVATION** This species and other “long-legged waders” have benefited from state and federal protection, particularly of breeding colonies.

Similar Birds

SANDHILL CRANE
Bald red crown;
bustlelike tail coverts;
flies with neck extended.

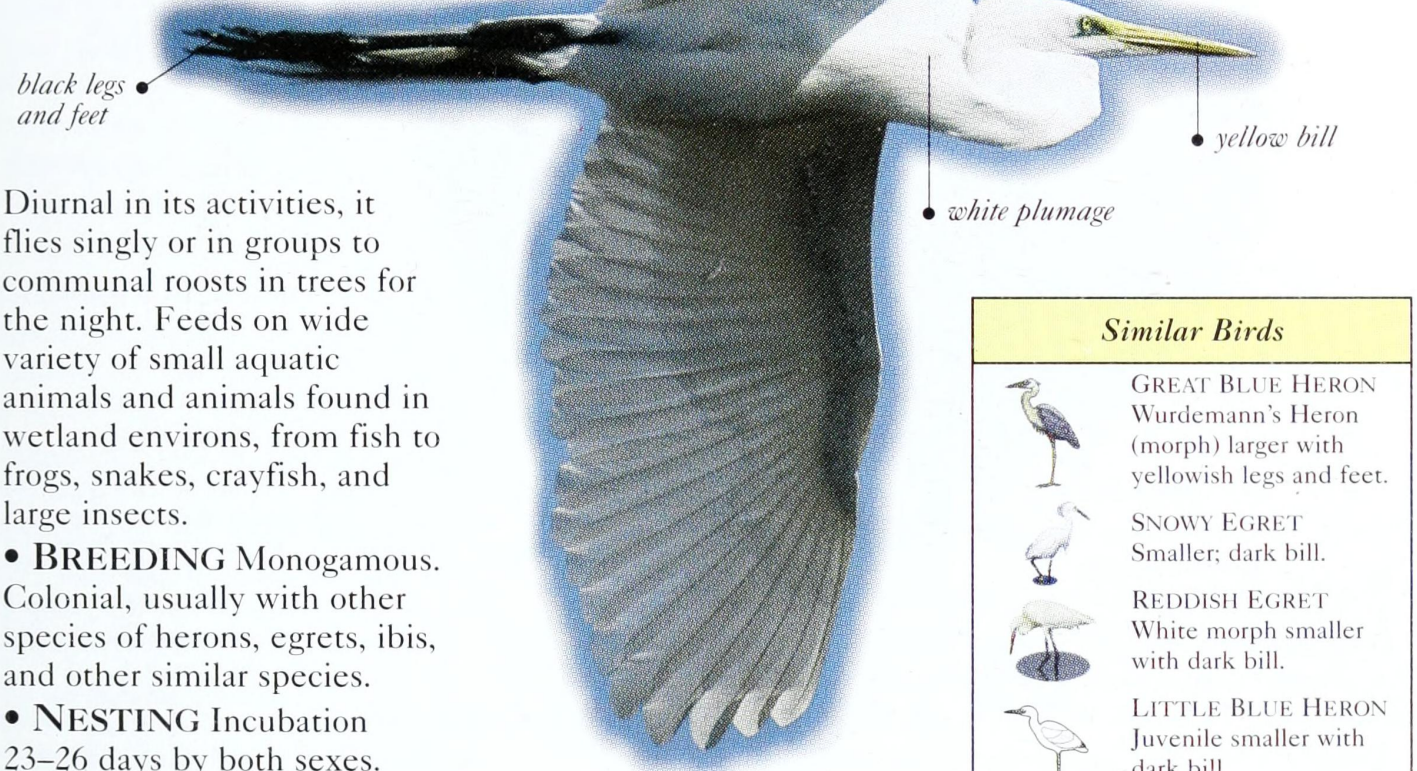
Plumage Sexes similar	Habitat	Migration Northern birds migrate	Weight 5.7 pounds
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Family ARDEIDAE	Species <i>Ardea alba</i>	Length 37–41 inches	Wingspan 55 inches
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GREAT EGRET

The largest white egret found over most of its range can be distinguished from other white egrets and juvenile herons by its size, yellow bill, and black legs and feet. This tall, slender-necked bird develops long trains of lacy plumes on its back that extend beyond the tail when breeding, and its yellow bill appears more orange in color.

- **SONG** Bold throaty croaking or repeated *cuk, cuk*.
- **BEHAVIOR** Prefers to feed in open areas from salt marshes to freshwater habitats.

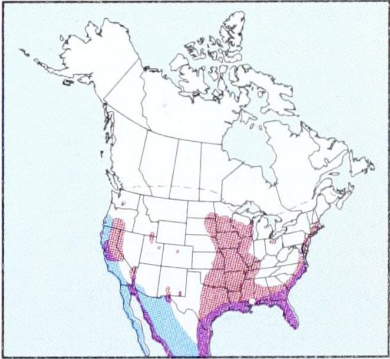


Diurnal in its activities, it flies singly or in groups to communal roosts in trees for the night. Feeds on wide variety of small aquatic animals and animals found in wetland environs, from fish to frogs, snakes, crayfish, and large insects.

- **BREEDING** Monogamous. Colonial, usually with other species of herons, egrets, ibis, and other similar species.
- **NESTING** Incubation 23–26 days by both sexes. Young stay in nest 21 days. Fed by both sexes. 1 brood per year.
- **POPULATION** Decimated by plume hunters in late 1800s. Protected since early 20th century. In recent decades breeding range has expanded northward.

• **CONSERVATION** With full protection in North America, species is increasing. Still, factors such as polluted waters, coastal development, and draining of wetlands negatively impact egrets.

Similar Birds	
	GREAT BLUE HERON Wurdemann's Heron (morph) larger with yellowish legs and feet.
	SNOWY EGRET Smaller; dark bill.
	REDDISH EGRET White morph smaller with dark bill.
	LITTLE BLUE HERON Juvenile smaller with dark bill.
	CATTLE EGRET Much smaller; yellow legs and feet.



Flight Pattern
Buoyant direct flight with deep steady wing beats.

Nest Identification	
Shape	Location
Made of sticks • unlined or lined with fine material • in tree or shrub, usually 10–40 feet above ground • built by both sexes • 1–6 pale blue-green or light blue eggs, 2.2 inches long.	

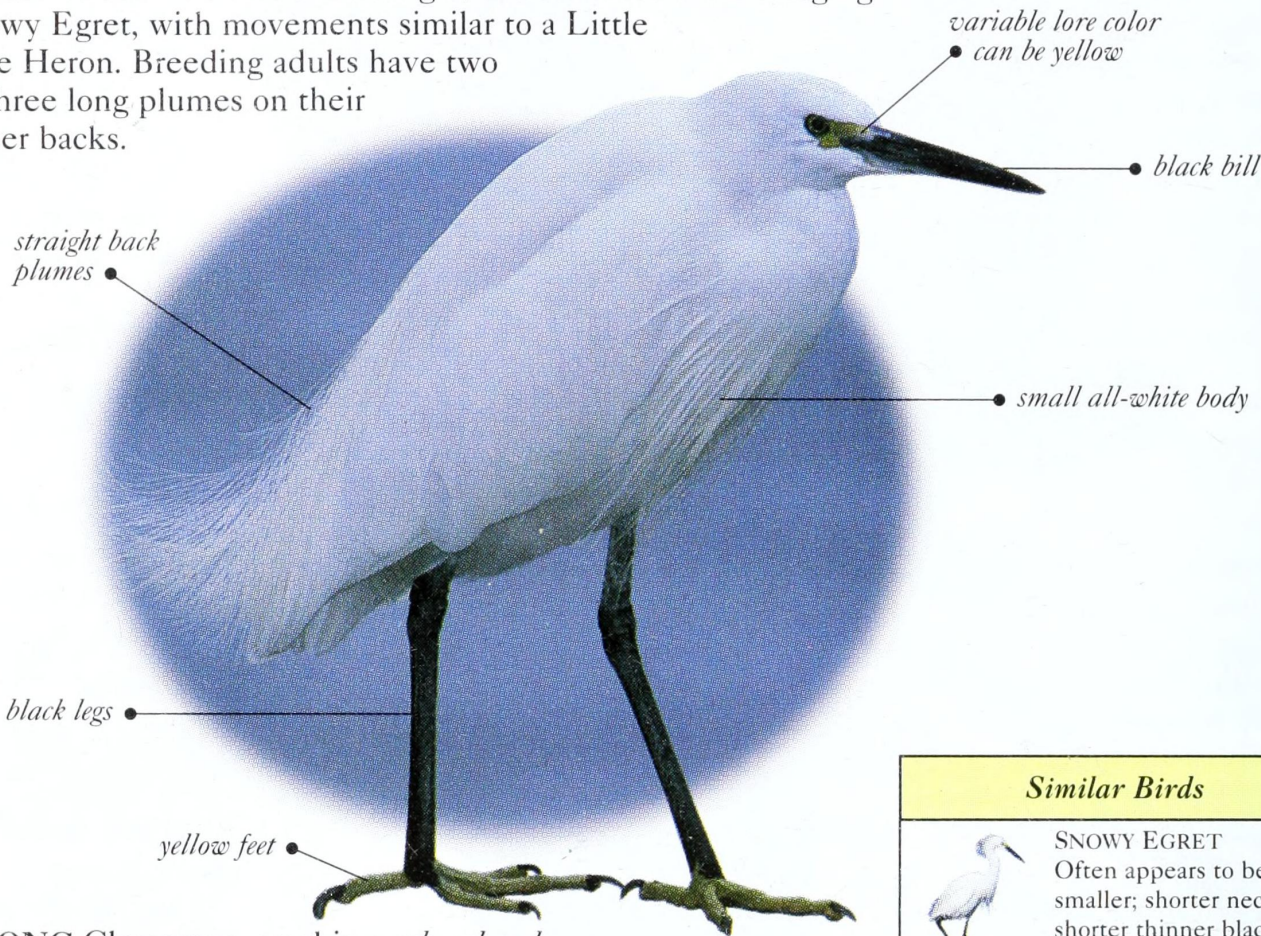
Plumage Sexes similar	Habitat	Migration Some migrate	Weight 2.0 pounds
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DATE _____ TIME _____ LOCATION _____

Family ARDEIDAE	Species <i>Egretta garzetta</i>	Length 24 inches	Wingspan 36 inches
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LITTLE EGRET

This Old World native has been found with increasing regularity in North America in recent years. Similar to the Snowy Egret it appears larger because of its slightly longer neck and legs. Feeding is more deliberate than the erratic rushing about often seen in a foraging Snowy Egret, with movements similar to a Little Blue Heron. Breeding adults have two or three long plumes on their upper backs.



- **SONG** Clamorous, croaking *ark-ark-ark*.
- **BEHAVIOR** Very sociable; always feeds in small flocks. Eats frogs, small fish, and insects. Feeds in shoals, meadows, fields, or on banks. Flight is more hurried than that of other herons.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 20–24 days by both sexes. Fed by both sexes. Semialtricial young fledge nest at about 30 days. 1 brood per year.
- **POPULATION** Common in Europe. Rare to casual in spring and summer in North America on northern Atlantic Coast from Newfoundland to Virginia; not known to have nested here.

Similar Birds

SNOWY EGRET
Often appears to be smaller; shorter neck; shorter thinner black legs; shorter bill; yellow lores; crested; brighter yellow feet • in breeding plumage has many long upward-curved plumes on back.

GREAT EGRET
Twice the size; yellow bill; black legs and feet.

Flight Pattern

Direct flight with steady deep wing beats.

Nest Identification

Shape

Location

summer in North America on northern Atlantic Coast from Newfoundland to Virginia; not known to have nested here.

- **CONSERVATION** Protected by law and may not be kept without a permit.



Dry twigs • in trees • occasionally in dry reed • 5–6 greenish blue eggs.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.1 pounds
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DATE _____ TIME _____ LOCATION _____

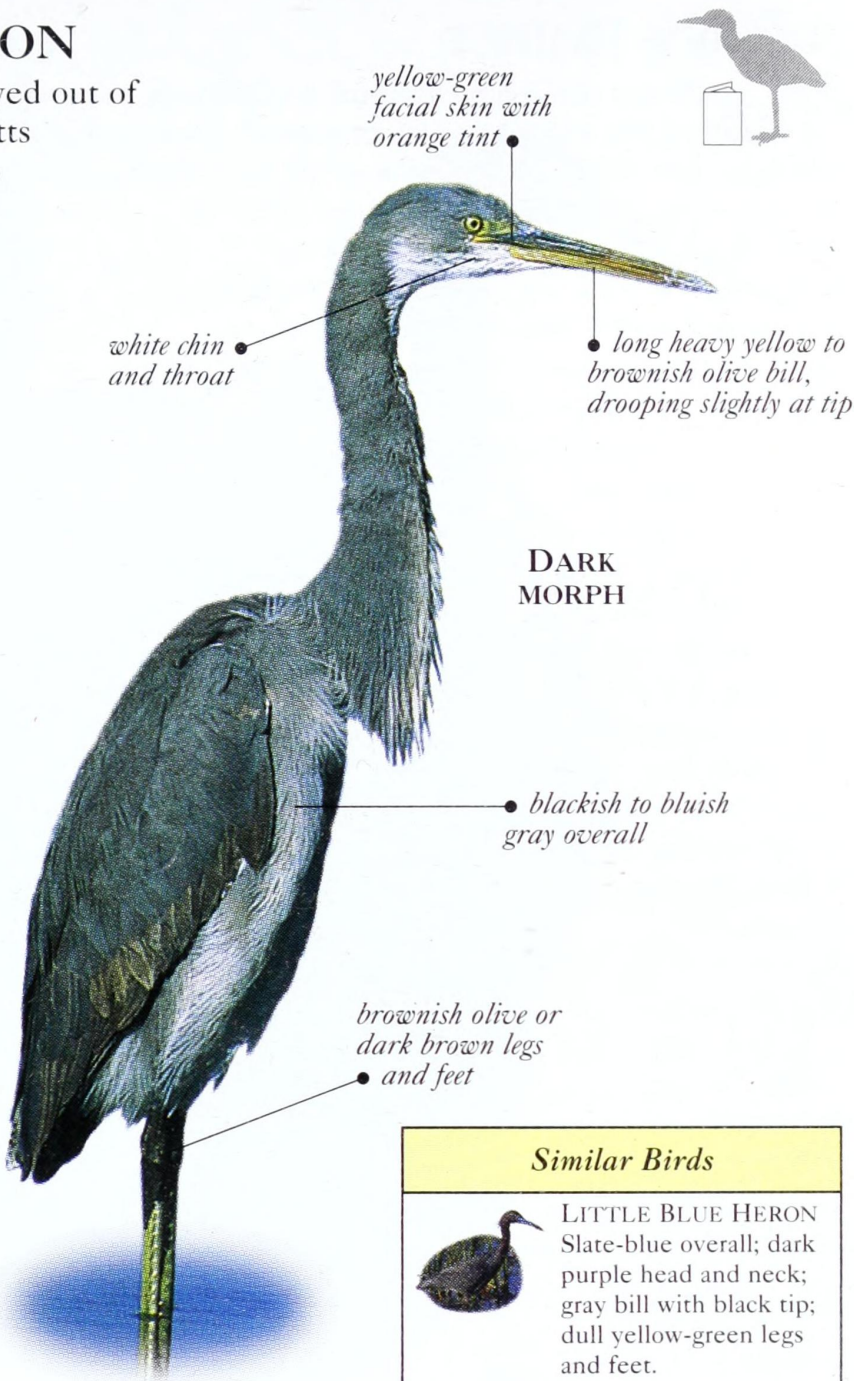
Family ARDEIDAE	Species <i>Egretta gularis</i>	Length 22–26 inches	Wingspan 40–43 inches
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WESTERN REEF-HERON

This native of Africa and Asia has strayed out of its range and been seen in Massachusetts once. Almost exclusively coastal, it also frequents mudflats and estuaries. Also called the Western Reef-Egret, this species has two distinct color morphs. The dark morph in flight appears blackish with a white chin and throat and a white patch on the primary coverts. The juvenile dark morph is similar to the adult but its plumage is light gray to slate-gray, and its toes are yellow to orange-yellow. The white morph is white overall with two long narrow plumes on the back of its crown.

- **SONG** Generally silent. When disturbed, it gives a guttural *kawww*.
- **BEHAVIOR** Solitary or in pairs on exposed reefs or mudflats. Often stands slouched and rests on tarsi in shallow water or onshore. Eats frogs, fish, mice, crustaceans, and mollusks. Does not spear food, but grasps with mandibles and swallows whole. Waits for prey to come close or stalks it with deliberation, then a lightning-quick thrust. Stalks in crouched position; seldom dashes in active pursuit. Nests and roosts in small groups inland in trees or on rock ledges.

- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 20–25 days by both sexes. Young semialtricial; brooded by female; stay in nest about 30 days, fed by both sexes. 1 brood per year.
- **POPULATION** Accidental in North America in Nantucket, Massachusetts.

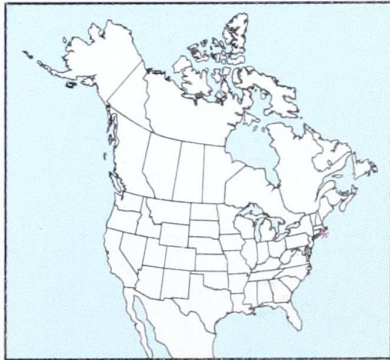


Similar Birds



LITTLE BLUE HERON
Slate-blue overall; dark purple head and neck; gray bill with black tip; dull yellow-green legs and feet.

NOTE No white egret has the posture, heavy bill shape, or leg color of the white morph.



Flight Pattern

Slow purposeful direct flight with deep rapid wing beats.

Nest Identification

Shape Location

Untidy structure of sticks • in tree, on ground, under shrub, or on rock ledge • built by both sexes • 2–5 pale green to blue-white eggs; oval, 1.6 x 1.2 inches.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 14.1 ounces
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DATE _____ TIME _____ LOCATION _____

Family AEDEIDAE	Species <i>Egretta thula</i>	Length 22–27 inches	Wingspan 38–45 inches
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SNOWY EGRET

This is perhaps the most beautiful of all North American egrets and herons in its nuptial plumage, and the daintiest with or without it. This energetic medium-sized white egret has black legs and bright yellow “slippers.” Slaughtered by the thousands for its soft, lacy breeding finery, it was the most persecuted of all egrets by plume hunters in the late 19th and early 20th century.

- **SONG** Generally silent. Vocalizations are harsh squawks.
- **BEHAVIOR** Most active heron when feeding. Rushes after prey in manner of Reddish Egret. Often sticks one foot forward in water and rapidly vibrates it to startle prey. Crustaceans, insects, and fish are important components of diet.
- **BREEDING** Monogamous. Colonial, often nests in mixed colonies with other herons and egrets.
- **NESTING** Incubation 20–24 days by both sexes. Young stay in nest 30 days. Fed by both sexes. 1 brood per year.
- **POPULATION** Increasing. Range expanding northward.



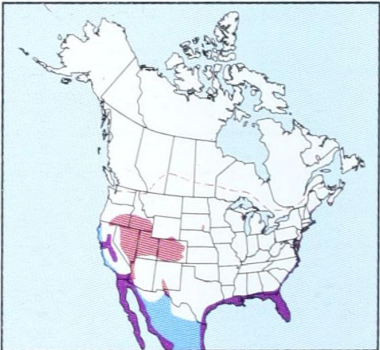
WINTER PLUMAGE

Similar Birds	
	CATTLE EGRET Stockier; shorter neck; yellow bill and legs.
	GREAT EGRET Much larger; yellow bill; black feet.
	LITTLE BLUE HERON Juvenile has greenish legs; gray bill with black tip.

Flight Pattern	
Buoyant flight with steady fast wing beats.	

Nest Identification	
Shape	Location

- **CONSERVATION** Seemingly thriving today, but almost extirpated in the early 20th century by demand for its “cross aigrettes” for ladies’ fashions.



Made of sticks • lined with fine twigs and rushes • in short tree or shrub, 5–10 feet high • sometimes on ground • built by both sexes • 2–6 pale blue-green eggs, 1.7 inches long.

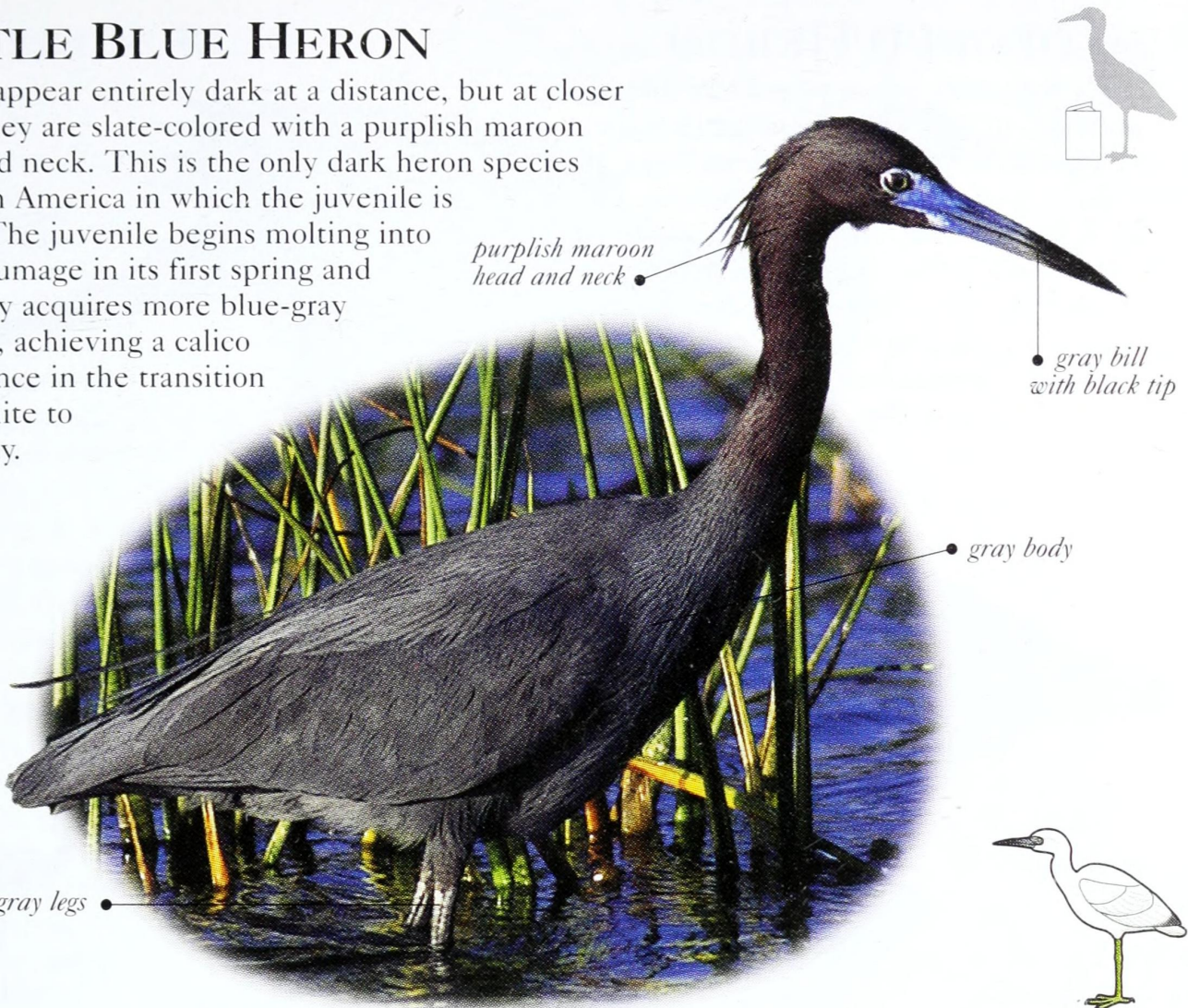
Plumage Sexes similar	Habitat	Migration Migratory	Weight 13.1 ounces
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DATE _____ TIME _____ LOCATION _____

Family ARDEIDAE	Species <i>Egretta caerulea</i>	Length 24–29 inches	Wingspan 40–41 inches
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LITTLE BLUE HERON

Adults appear entirely dark at a distance, but at closer range they are slate-colored with a purplish maroon head and neck. This is the only dark heron species in North America in which the juvenile is white. The juvenile begins molting into adult plumage in its first spring and gradually acquires more blue-gray feathers, achieving a calico appearance in the transition from white to slate gray.



- **SONG** Breeding male makes *eh-oo-ah-eh-eh*. Both sexes make loud nasal *skea* or *scaah* and low clucking notes.
- **BEHAVIOR** Prefers fresh water but can be found in brackish water and salt marshes. A stealthy stalker, it moves slowly as it wades in shallow water or along water's edge for prey. Feeds on a variety of small vertebrates, crustaceans, and large insects. Roosts in trees and shrubs at night.
- **BREEDING** Monogamous. Colonial; often nests in heronries with other species.
- **NESTING** Incubation 20–24 days by both sexes. Young stay in nest 42–49 days. Fed by both sexes. 1 brood per year.

Similar Birds



REDDISH EGRET
Dark morph similar to adult; rufous head and neck; pink bill with black tip • white morph similar to juvenile.



TRICOLORED HERON
White underparts.

Flight Pattern



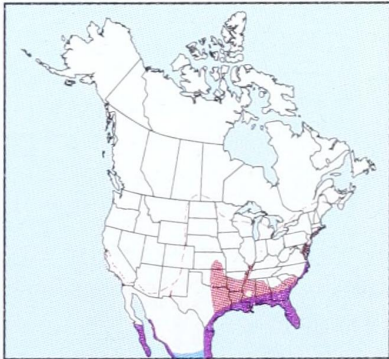
Direct flight with steady quick wing beats.

Nest Identification

Shape 

Location   

Sticks and twigs • unlined or lined with finer material • usually in tree or shrub, 3–15 feet high • occasionally on ground • built by both sexes • 1–6 pale blue-green eggs; elliptical to subelliptical, 1.7 inches long.



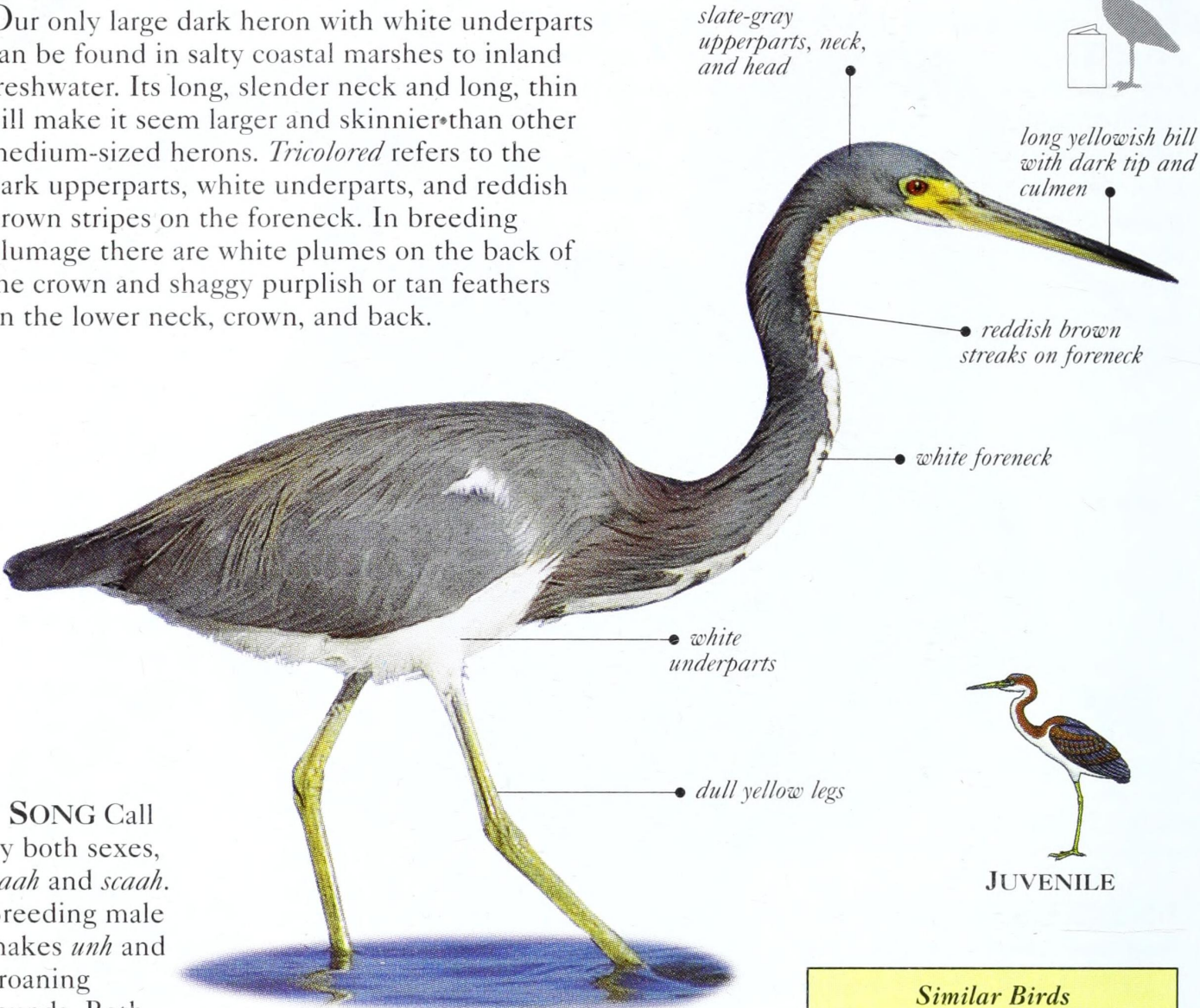
Plumage Sexes similar	Habitat   	Migration Migratory	Weight 12.9 ounces
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DATE _____ TIME _____ LOCATION _____

Family ARDEIDAE	Species <i>Egretta tricolor</i>	Length 24–26 inches	Wingspan 36 inches
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TRICOLORED HERON

Our only large dark heron with white underparts can be found in salty coastal marshes to inland freshwater. Its long, slender neck and long, thin bill make it seem larger and skinnier than other medium-sized herons. *Tricolored* refers to the dark upperparts, white underparts, and reddish brown stripes on the foreneck. In breeding plumage there are white plumes on the back of the crown and shaggy purplish or tan feathers on the lower neck, crown, and back.



- **SONG** Call by both sexes, *aaah* and *scaah*. Breeding male makes *unh* and groaning sounds. Both may give *culh-culh* call.
- **BEHAVIOR** Often feeds by wading more deeply than many other herons, up to its belly. In short flights may leave neck stretched forward and legs dangling loosely beneath body. Some wander inland after breeding season.
- **BREEDING** Monogamous. Colonial; often nests in mixed colonies with other species.

Flight Pattern

Direct flight with steady quick wing beats.

Nest Identification

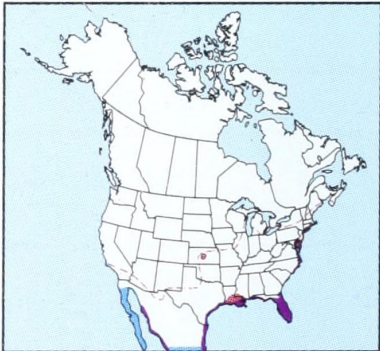
Shape Location

- **NESTING** Incubation 21–25 days by both sexes. Young stay in nest 35 days, fed by both sexes. 1 brood per year.
- **POPULATION** Probably declining due to habitat loss.

Similar Birds

LITTLE BLUE HERON
All dark without white underparts and rump.

REDDISH EGRET
Rufous head and neck in dark morph.



Sticks and twigs • lined with fine twigs, grass, or leaves • usually 2–30 feet above ground, rarely on or near ground • built by both sexes • 3–4 light bluish green eggs; ovate to oval or elliptical ovate to elliptical oval, 1.7 inches long.

Plumage Sexes similar	Habitat	Migration Some migrate	Weight 14.6 ounces
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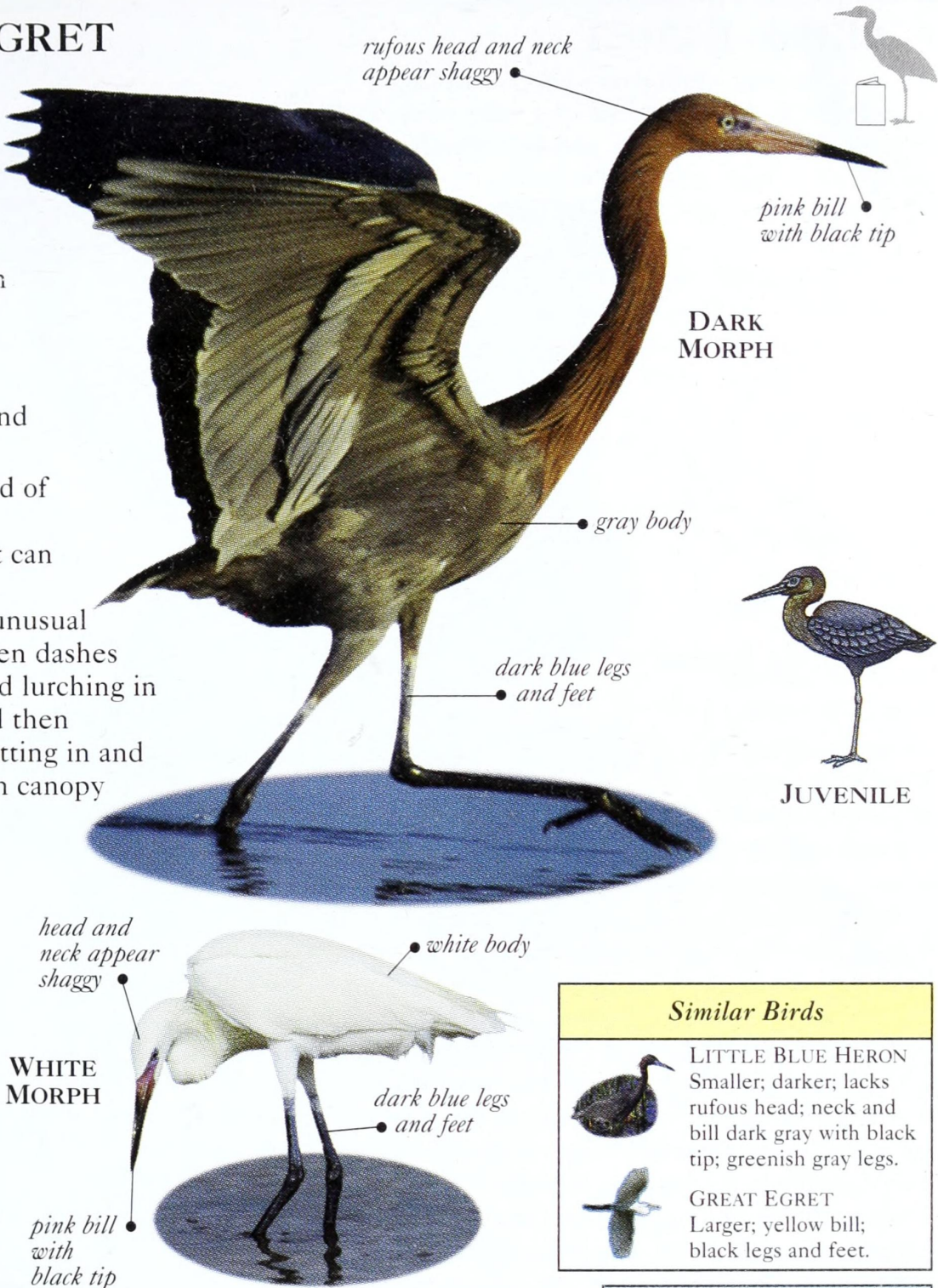
DATE _____ TIME _____ LOCATION _____

Family ARDEIDAE	Species <i>Egretta rufescens</i>	Length 27–32 inches	Wingspan 46 inches
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REDDISH EGRET

This coastal inhabitant is an uncommon to rare egret with two distinct color morphs, white and dark. The dark morph is more common.

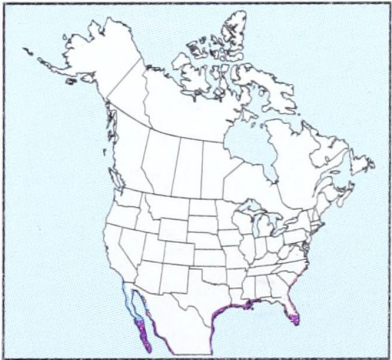
- **SONG** Generally silent. On nesting grounds, low croaks and soft clucking notes.
- **BEHAVIOR** A bird of coastal salt pans and shallow tidal flats that can often be identified at some distance by its unusual feeding behavior. Often dashes after prey, running and lurching in first one direction and then another with wings jutting in and out or held skyward in canopy fashion. Sometimes feeds by stirring bottom mud with a foot and striking escaping prey.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 25–26 days by both sexes. Young stay in nest 42–49 days, fed by both sexes. 1 brood per year.



Similar Birds	
	LITTLE BLUE HERON Smaller; darker; lacks rufous head; neck and bill dark gray with black tip; greenish gray legs.
	GREAT EGRET Larger; yellow bill; black legs and feet.

Flight Pattern	
	Direct flight with buoyant steady wing beats.
Nest Identification	
Shape	Location

- **POPULATION** Rare to uncommon. Nearly killed off by plume hunters in late 1800s. Numbers have been increasing gradually with complete protection. Current total US population about 2,000 pairs.



Platform of sticks and grasses with little or no lining • on ground in Texas; 3–15 feet high in tree in Florida • built by both sexes • 2–7 pale blue-green eggs, 2 inches long.

Plumage Sexes similar	Habitat	Migration Most do not migrate	Weight 15.9 ounces
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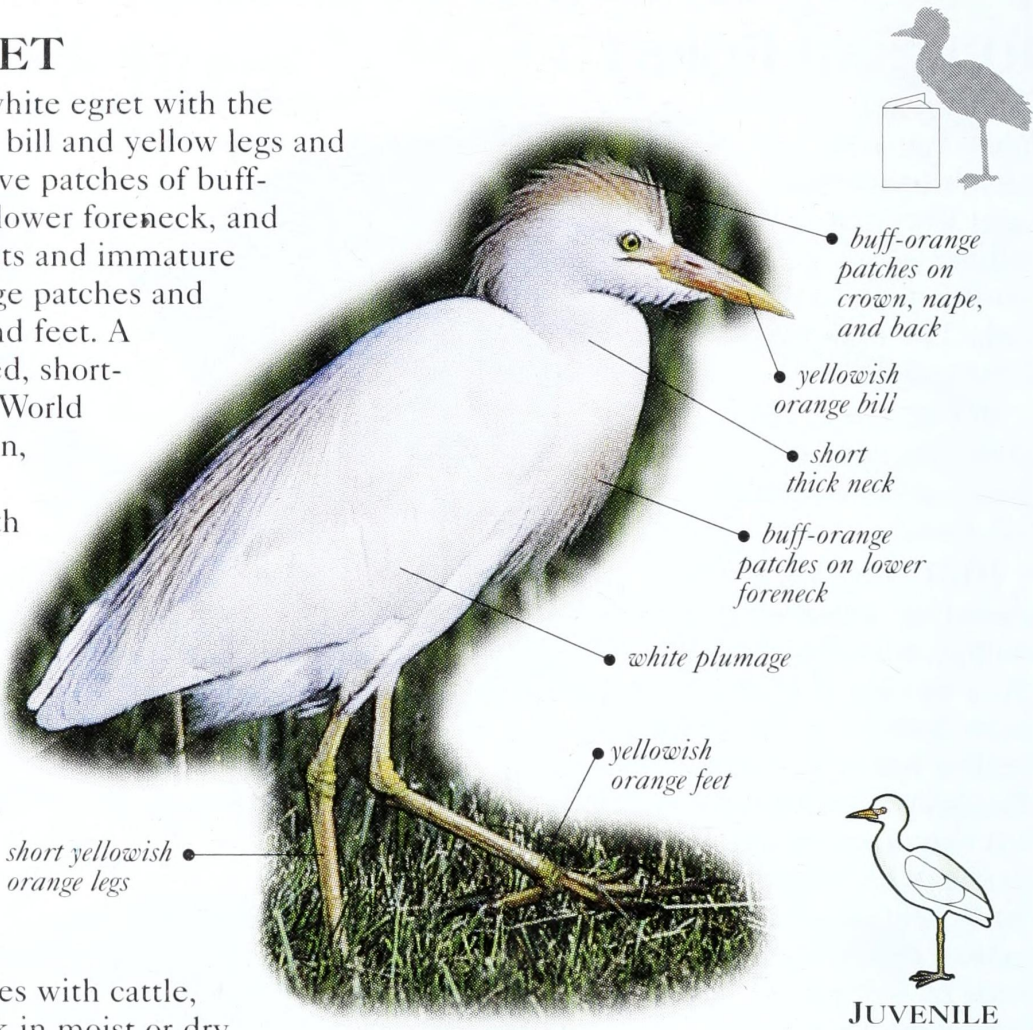
DATE _____ TIME _____ LOCATION _____

Family ARDEIDAE	Species <i>Bubulcus ibis</i>	Length 19–21 inches	Wingspan 36–38 inches
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CATTLE EGRET

This is the only small white egret with the combination of a yellow bill and yellow legs and feet. Breeding adults have patches of buff-orange on crown, nape, lower foreneck, and back. Nonbreeding adults and immature birds lack the buff-orange patches and have yellow bill, legs, and feet. A big-headed, thick-necked, short-legged egret of the Old World (originally found in Spain, Portugal, and Africa), it introduced itself to South America in the 1880s and to Florida by the early 1940s. From there it moved over most of the US and into southern Canada.

- **SONG** Various croaking sounds at breeding colonies; otherwise silent.
- **BEHAVIOR** Associates with cattle, horses, or other livestock in moist or dry pastures, where it feeds primarily on large insects disturbed by feeding livestock. Several birds may accompany a single cow, often riding on its back. Also follows tractors plowing fields to feed on the exposed insects and grubs. Largely diurnal, flying at dusk to communal roosts with other egrets, herons, and ibis to spend the night perched in trees or shrubs. They often form the nucleus of nesting colonies of other species of heron and egrets, and their presence may encourage the nesting of these birds in the heronries.
- **BREEDING** Monogamous. Colonial; often found in mixed breeding colonies with other species.
- **NESTING** Incubation 21–26 days by both sexes.



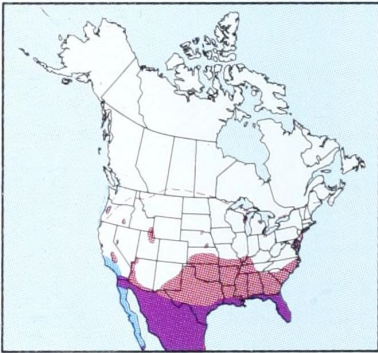
Similar Birds	
	SNOWY EGRET Longer, more slender neck; black bill and legs.
	LITTLE BLUE HERON Juvenile is larger with longer, more slender neck; greenish gray legs and feet; black-tipped grayish bill.
	GREAT EGRET Larger; black legs and feet.

Flight Pattern	
Direct flight with steady, rather rapid wing beats.	

Nest Identification	
Shape	Location

Semialtricial young remain in nest about 45 days. Fed by both sexes. 1 brood per year.

- **POPULATION** North American population increasing.
- **CONSERVATION** Nesting colonies protected.



Sticks and reeds • lined with leafy green twigs • in tree or shrub • built by female from materials gathered by male • 1–9 pale blue or light bluish green eggs; subelliptical or elliptical, 1.9 inches long.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 11.9 ounces
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DATE _____ TIME _____ LOCATION _____

Family ARDEIDAE	Species <i>Butorides virescens</i>	Length 18–22 inches	Wingspan 26 inches
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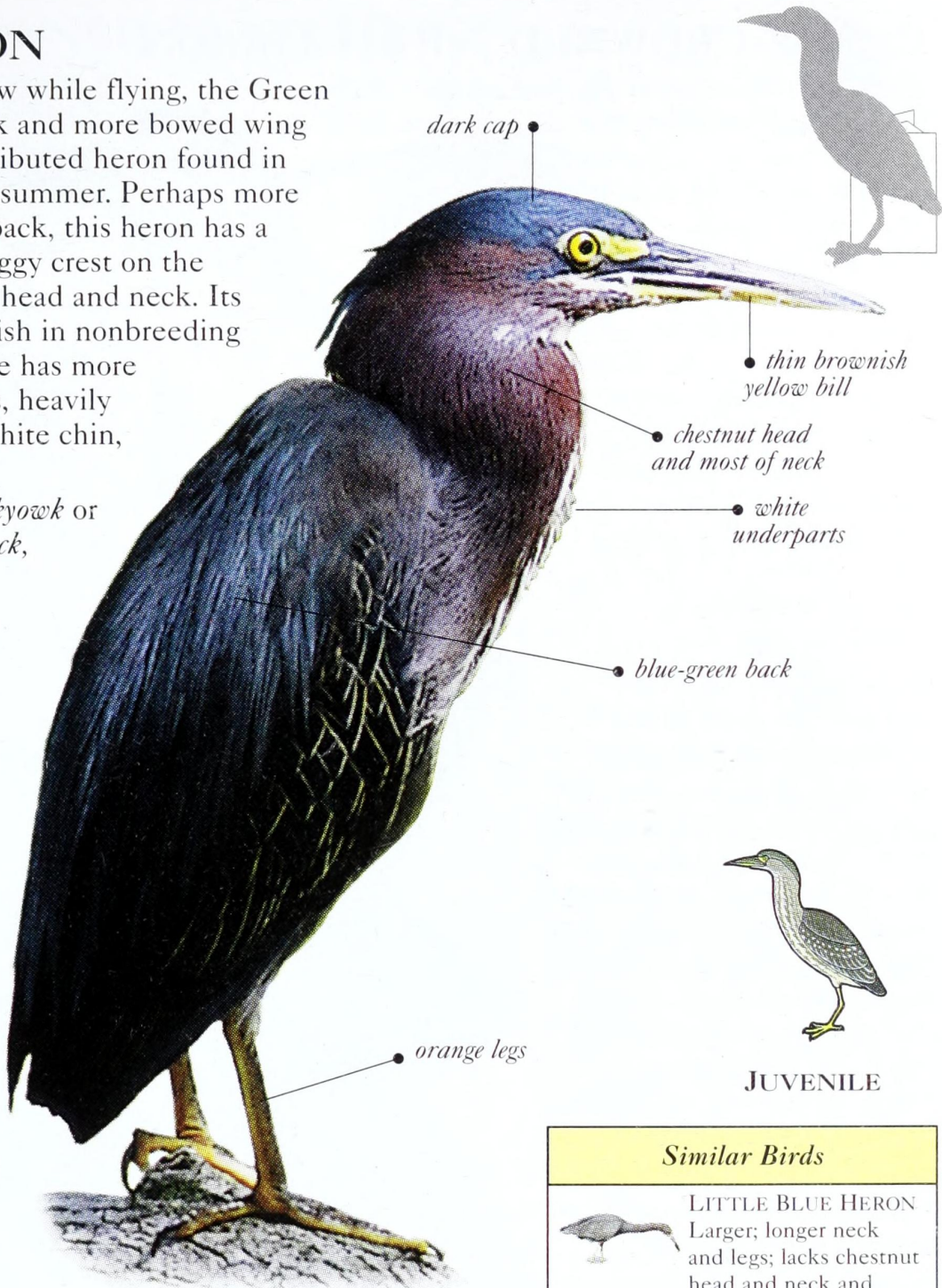
GREEN HERON

Looking similar to a crow while flying, the Green Heron has a thicker neck and more bowed wing beats. It is a widely distributed heron found in almost every wetland in summer. Perhaps more blue than green on the back, this heron has a dark cap ending in a shaggy crest on the occiput, with a chestnut head and neck. Its legs appear more yellowish in nonbreeding season. Juvenile plumage has more brown on the upperparts, heavily streaked underparts, a white chin, and dull yellow legs.

• **SONG** Bold abrasive *kyowk* or *skeow*; sometimes soft *kuck*, *kuck* notes.

• **BEHAVIOR** Diurnal species that retires to ground or close to it for the night. Often walks slowly when hunting or stands and waits motionless in water or on an overhanging perch for prey to come close enough for a quick strike. When disturbed, often nervously flicks its short tail and elevates shaggy crest. Has been seen placing food or bait in the water deliberately to attract fish. Often perches in trees and shrubs.

• **BREEDING** Monogamous. Usually solitary pairs; occasionally forms small colonies. Sometimes nests rather distant from water.

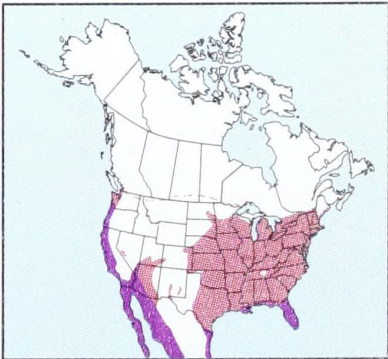


JUVENILE

Similar Birds



LITTLE BLUE HERON
Larger; longer neck and legs; lacks chestnut head and neck and pale underparts.



Flight Pattern



Direct flight with slow steady arched wing beats.

• **NESTING** Incubation 19–25 days by both sexes. Young remain in nest for 16–17 days, fed by both sexes. 1 or 2 broods per year.

• **POPULATION** Common and stable.

Nest Identification

Shape Location

Sticks and twigs • in tree or shrub, 5–30 feet off ground • built by both sexes • 2–7 pale green or blue-green eggs; elliptical to subelliptical, 1.5 inches long.

Plumage Sexes similar	Habitat	Migration Some migrate	Weight 7.5 ounces
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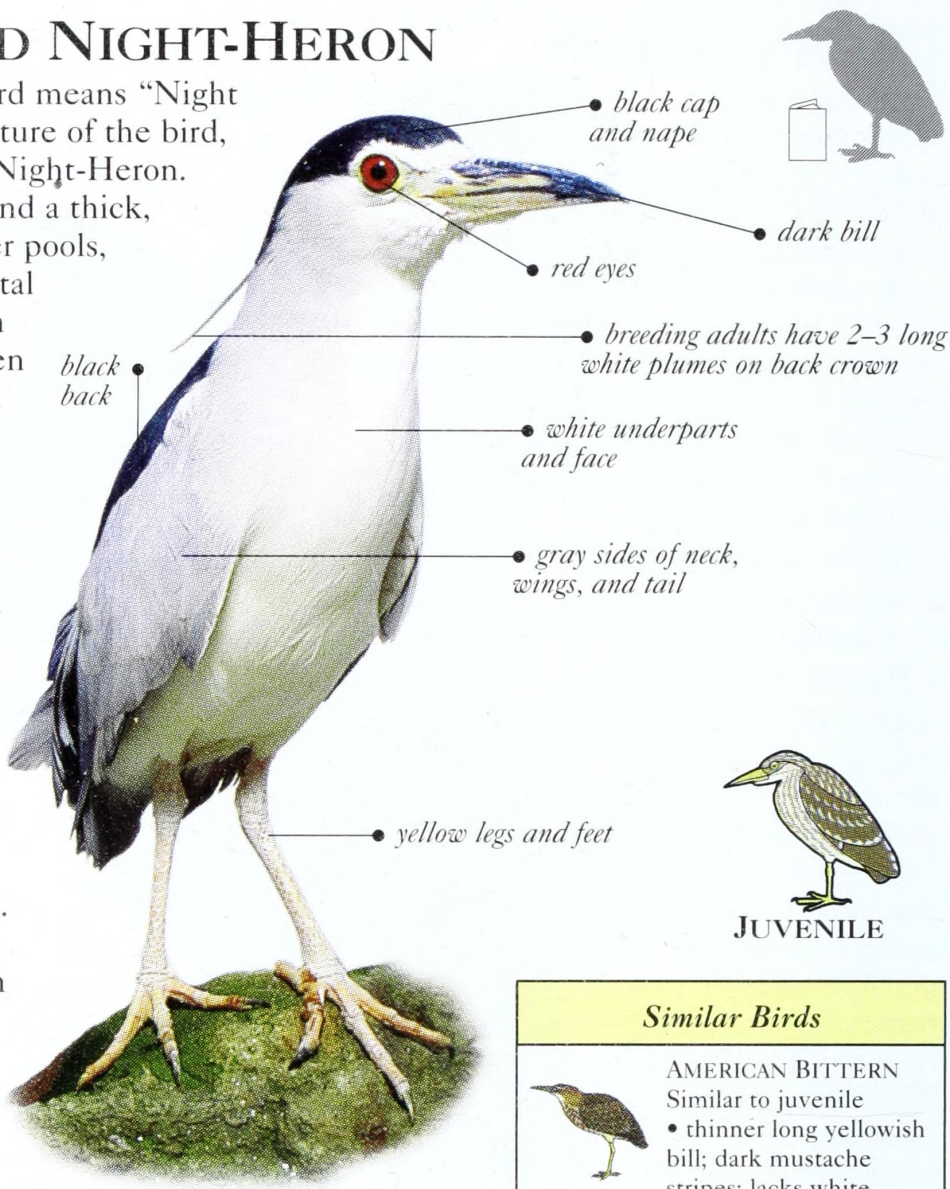
DATE _____ TIME _____ LOCATION _____

Family ARDEIDAE	Species <i>Nycticorax nycticorax</i>	Length 25–28 inches	Wingspan 44–45 inches
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BLACK-CROWNED NIGHT-HERON

The scientific name of this bird means “Night Raven,” and it refers to the nature of the bird, as does the common name of Night-Heron. A stocky bird with short legs and a thick, short neck, it prowls freshwater pools, marshes, and streams and coastal estuaries across much of North America. In flight the toes often protrude beyond the short tail. Juvenile plumage shows brown above with white spots and streaking, buff-brown below with dark brown spots and streaking. Juveniles have a yellowish bill with a dark tip and greenish yellow legs and feet.

- **SONG** Low, harsh *woe* and guttural *quock* or *quaik*.
- **BEHAVIOR** Primarily nocturnal. Roosts in trees by day and actively feeds at night. Some feed during daylight hours. Omnivorous, feeding on whatever is most handy. Diet ranges from fish to mollusks, small rodents, frogs, snakes, crustaceans, plant material, eggs, and young birds. Often stands very still in water for long periods of time, expertly grabbing fish that swim too close.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 21–26 days by both sexes. Young stay in nest 28 days. Fed by both sexes. First flight at 42 days. After 49 days, may follow parents to foraging areas to beg and be fed. 1 brood per year.



JUVENILE

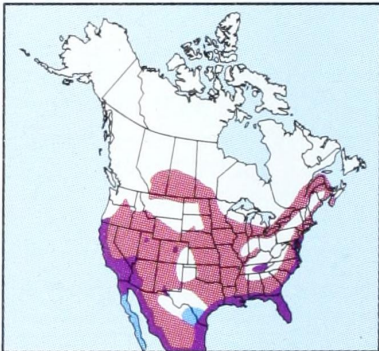
Similar Birds



AMERICAN BITTERN
Similar to juvenile
• thinner long yellowish bill; dark mustache stripes; lacks white spotting above.



YELLOW-CROWNED NIGHT-HERON
Similar to juvenile
• more gray-brown with smaller white spots; thick dark bill; thinner neck; longer legs.



Flight Pattern

Direct flight with slow steady wing beats.

Nest Identification

Shape

Location

- **POPULATION** Overall stable or increasing.
- **CONSERVATION** Benefited from general protection by state, federal, and conservation agencies. Loss of wetland habitat affects food supply and reproduction.

Sticks, twigs, and reeds • lined with finer material • on or above ground as high as 150 feet • built by female with materials gathered by male • 1–7 pale green or light bluish eggs; oval, 2 inches long.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.9 pounds
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DATE _____ TIME _____ LOCATION _____

Family ARDEIDAE

Species *Nyctanassa violacea*

Length 22–28 inches

Wingspan 42–44 inches

YELLOW-CROWNED NIGHT-HERON

At home in coastal mangroves, inland swamps, and riparian woodlands, this short-necked, stocky heron has a gray body and a large black head boldly marked with a white cheek patch and white crown with yellowish tints on the forehead. During breeding season adult males and females have long white occipital plumes on the back of the head. The long yellow legs protrude well beyond the short tail in flight.

• **SONG** Short *woe* or *wok*. Its *quak* is higher and less harsh than that given by the Black-crowned Night-Heron.

• **BEHAVIOR** While mostly nocturnal, it is often active during the day. Exhibits strong preference for crustaceans, although it eats a variety of other aquatic organisms from fish to shellfish.

• **BREEDING** Monogamous. Solitary nester or forms small loose colonies. Also joins large nesting colonies with other herons and egrets, often chooses nesting site located on

periphery of the colony.

• **NESTING** Incubation 21–25 days by both sexes. Young remain in nest 25 days. Fed by both sexes. Probably 1 brood per year.

• **POPULATION** Stable.

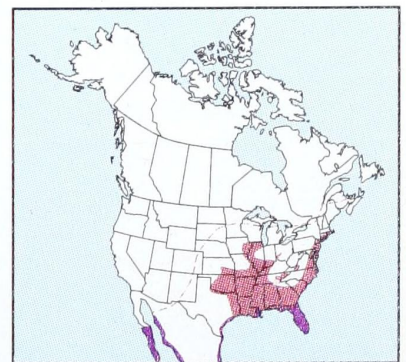


JUVENILE

Similar Birds



BLACK-CROWNED NIGHT-HERON
Black back; white head with black cap; short yellowish legs
• juvenile has brown crown; brown upperparts with large white spots and streaks; whitish-tan underparts with brown streaking; short yellow-green legs and feet; yellowish bill with black tip.



Flight Pattern



Direct flight with steady deep wing beats.

Nest Identification

Shape  Location  

Sticks • lined with twigs or sometimes leaves • either on ground or in tree 30–40 feet high • built by both sexes • 2–8 pale blue-green eggs; oval to long oval, 2 inches long.

Plumage Sexes similar

Habitat    

Migration Migratory

Weight 1.6 pounds

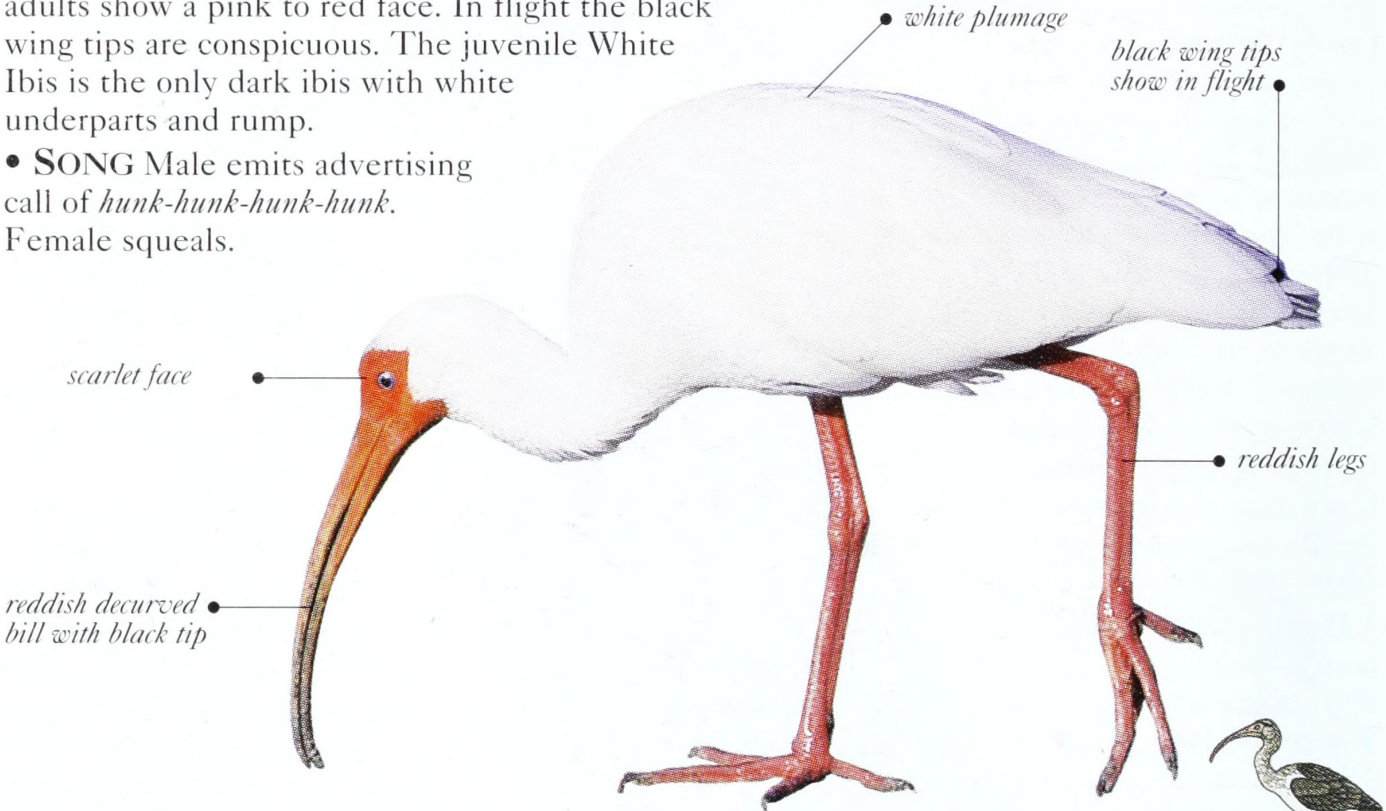
DATE _____ TIME _____ LOCATION _____

Family THRESKIORNITHIDAE	Species <i>Eudocimus albus</i>	Length 21–27 inches	Wingspan 38 inches
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WHITE IBIS

The all-white plumage and long reddish decurved bill are distinctive. The color of the bill blends into the scarlet face of breeding birds; nonbreeding adults show a pink to red face. In flight the black wing tips are conspicuous. The juvenile White Ibis is the only dark ibis with white underparts and rump.

- **SONG** Male emits advertising call of *hunk-hunk-hunk-hunk*. Female squeals.



Feeding birds give soft grunting *croo*, *croo*, *croo* frequently as they forage.

- **BEHAVIOR** Like other ibis, flies with neck and legs outstretched, often in long, loose lines. Seems to prefer marshes and pools near the coast, where it feeds by probing. Primarily diurnal like other ibis. Flies to communal roosts in shrubs and trees in evening for the night.
- **BREEDING** Monogamous. Colonial. Usually nests in mixed colonies with other wading species.
- **NESTING** Incubation 21–23 days by both sexes. Altricial young remain in nest 28–35 days. Fed by both sexes. Probably 1 brood per year.

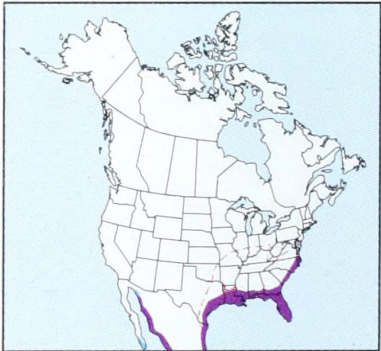
Flight Pattern

Rapid wing beats followed by short glide. Flies in straight line formation.

Nest Identification

Shape Location

- **POPULATION** Common to abundant in coastal marshes but local. Range has increased, but Florida population much lower than previous levels. Some heavy losses after major hurricanes destroy roosts/rookeries.



FIRST FALL PLUMAGE

Similar Birds

GLOSSY IBIS
WHITE-FACED IBIS
Similar to juvenile but differ in all plumages by white underparts and rump • Glossy Ibis range only in the East.

Sticks and sometimes cordgrass or reeds • near water, occasionally in shrub or on low, matted vegetation • usually 7–15 feet above ground or water • built by female from material gathered by male • 2–4 pale blue to green-white eggs with blotches of brown; subelliptical to long elliptical, 2.3 inches long.

Plumage Sexes similar	Habitat	Migration Some migrate	Weight 2.3 pounds
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DATE _____ TIME _____ LOCATION _____

Family THRESKIORNITHIDAE	Species <i>Eudocimus ruber</i>	Length 21.5–27.5 inches	Wingspan 36–38 inches
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SCARLET IBIS

Looking like a White Ibis dyed red, the adult is unmistakable in scarlet plumage with black wing tips. The decurved bill is pinkish brown to red, and the legs and feet are pinkish red. Origins of birds in Florida are suspect: some are escapees, while others were deliberately introduced. Some Scarlet Ibis in Florida have hybridized with the closely related White Ibis, producing various shades of pink offspring.



• SONG

Alarm call is a bubbling *gwe, gwe*. Generally silent except at nest where it utters a high, thin *tior-tior*.

• BEHAVIOR

Gregarious. Somewhat nervous and wary; shies away from humans. Prefers tropical and subtropical coastal marshes and swamps. Feeds principally on crustaceans but also eats fish and other aquatic vertebrates. Diurnal, flying to communal roosts in trees for the night.

Flight Pattern	
Several rapid wing beats followed by short glide. Flies in straight line formation.	

Nest Identification	
Shape	Location

- **BREEDING** Colonial; often nests with other species.
- **NESTING** Incubation about 23 days by both sexes. Young stay in nest 28 days.
- **POPULATION** Casual in US; strayed from South America.

Similar Birds	
	ROSEATE SPOONBILL Pink with spatulate, not decurved, bill.
	WHITE IBIS Juveniles similar; less streaked head and neck; grayer brown upperparts.



Frail structures built of dry sticks • placed in fork of branches • sometimes uses abandoned nests of herons or egrets • 5–35 feet high in mangroves or in shrubs over or near shallow water • 2–3 dull olive-green or buff eggs.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 1.3 pounds
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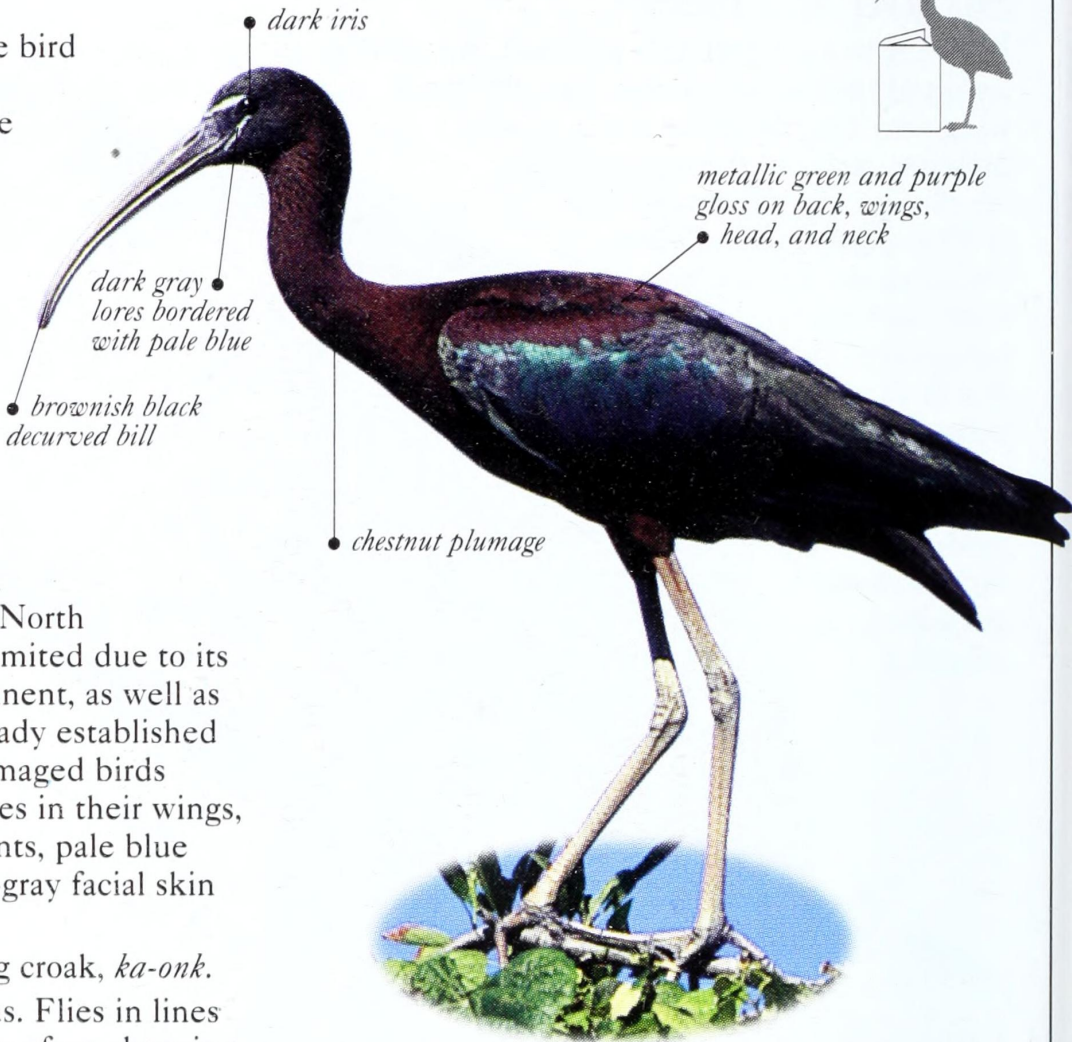
DATE _____ TIME _____ LOCATION _____

Family THRESKIORNITHIDAE	Species <i>Plegadis falcinellus</i>	Length 19–26 inches	Wingspan 36–38 inches
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GLOSSY IBIS

From a distance this large bird with a dark decurved bill appears dark overall in the freshwater or saltwater marshes it frequents, but closer observation reveals deep chestnut plumage glossed with metallic greens and purples. The species occurs widely in the Old World and evidence suggests that perhaps it introduced itself to North America in the 1800s. Its North American range may be limited due to its recent arrival on the continent, as well as competition with the already established White Ibis. Breeding plumaged birds show intense green patches in their wings, greenish legs with red joints, pale blue around the face and blue-gray facial skin in the loreal region.

- **SONG** Guttural, grating croak, *ka-onk*.
- **BEHAVIOR** Gregarious. Flies in lines or groups, with individuals often changing position in the flock. In flight the head, neck, and legs are extended. Highly prone to wandering, thus turns up at great distances from breeding range, especially in spring. Uses long bill to probe for food, particularly crayfish and crabs in their holes. Also readily eats water snakes. Often feeds with other large wading birds, including the White Ibis. Flies to roost late in the day and frequently is seen roosting with other species of ibis, herons, and egrets.
- **BREEDING** Monogamous. Colonial; often nests in mixed colonies with other ibis, herons, and egrets.



Similar Birds



- WHITE-FACED IBIS
Reddish legs and lores bordered with white; white line around lore encircles eye; red iris.
- WHITE IBIS
Juvenile • white underparts and rump.



Flight Pattern

Several shallow rapid wing beats followed by a short glide. Flies in straight line formation.

Nest Identification

Shape

Location

- **NESTING** Incubation about 21 days, mostly by female. Semialtricial young remain in nest for about 28 days, fed by both sexes. 1 brood per year.
- **POPULATION** Common but local. Greatly increased and expanded during 20th century.

Platform of sticks and marsh plants with depression in center • occasionally lined with leaves • in shrubs or low trees; on the ground on islands • built by both sexes • 1–5 pale blue or green eggs, 2 inches long.

Plumage Sexes similar	Habitat	Migration Migratory	Weight Undetermined
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DATE _____ TIME _____ LOCATION _____

Family THRESKIORNITHIDAE	Species <i>Plegadis chihi</i>	Length 20–26 inches	Wingspan 36–38 inches
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WHITE-FACED IBIS

This bird is almost identical to the Glossy Ibis in all plumages; winter-plumaged birds and juveniles must be inspected closely to distinguish between the two species. The best field marks are leg and lore color (pinkish in winter and juvenile birds, red in breeding birds). In breeding plumage white feathers border the lores and extend behind the eye and under the chin. In summer and winter, adult White-faced Ibis has a red iris.

• **SONG** Feeding call is a multisyllable *oink*. Also gives low-pitched *graa*, *graa*, *graa*.

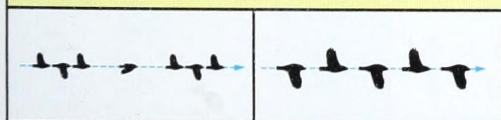
• BEHAVIOR

Gregarious. Flies in straight line formations. Feeds by probing with long bill, eating crayfish and other invertebrates, as well as frogs and fish. Usually frequents freshwater marshes, but coastal birds forage in salt marshes and include crabs in diet.

• **BREEDING** Monogamous. Colonial; often nests in mixed colonies with other ibis, herons, and egrets.
 • **NESTING** Incubation 17–26 days by both sexes. Young stay in nest about 28 days. Fed by both sexes. 1 brood per year.
 • **POPULATION** Uncommon to fairly common, but local. Local numbers fluctuate, but total North American population has increased since the 1970s. Range also has expanded eastward.

• **CONSERVATION** Serious concern in early 1970s, when reproduction failed in many colonies due to eggshell thinning from pesticides present in food chain.

Flight Pattern



Several shallow rapid wing beats followed by short glide. Flies in straight line formation.

Nest Identification

Shape   Location  

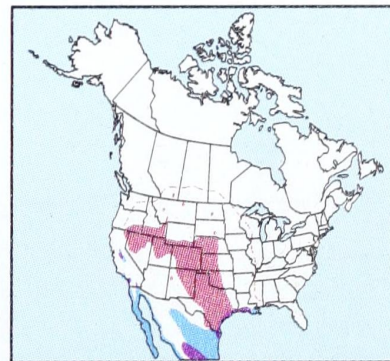
Bulrushes or other plant stems with depression in center • usually in thick marsh growth or short trees • built by both sexes • 2–5 pale blue-green to dark turquoise eggs; mostly elliptically ovate, some almost round; 2 inches long.



Similar Birds



GLOSSY IBIS
Blue-gray lores;
dark legs; dark eye.



Plumage Sexes similar	Habitat  	Migration Most migrate	Weight 1.6 pounds
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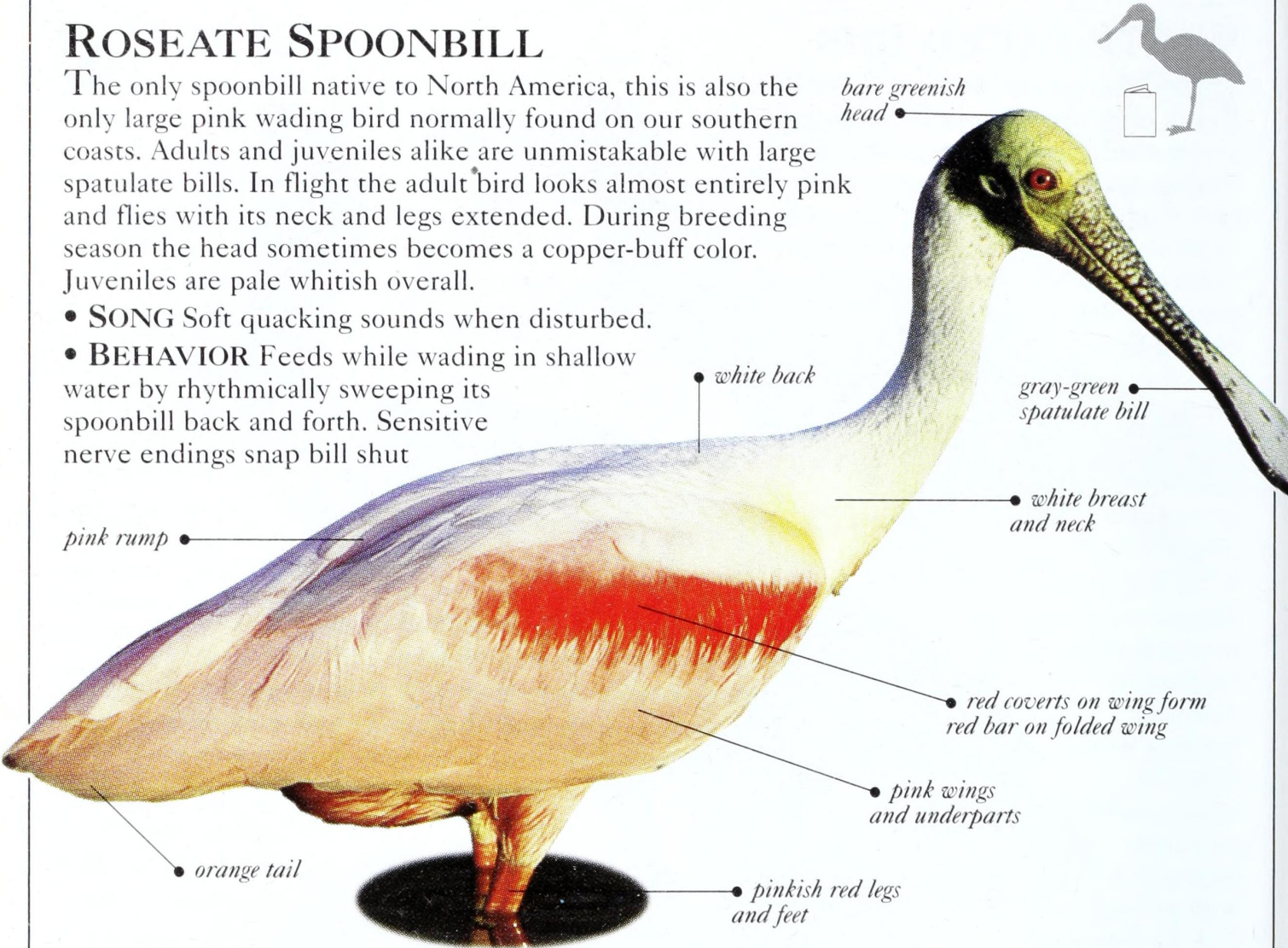
DATE _____ TIME _____ LOCATION _____

Family THRESKIORNITHIDAE	Species <i>Ajaia ajaja</i>	Length 30–40 inches	Wingspan 50–53 inches
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ROSEATE SPOONBILL

The only spoonbill native to North America, this is also the only large pink wading bird normally found on our southern coasts. Adults and juveniles alike are unmistakable with large spatulate bills. In flight the adult bird looks almost entirely pink and flies with its neck and legs extended. During breeding season the head sometimes becomes a copper-buff color. Juveniles are pale whitish overall.

- **SONG** Soft quacking sounds when disturbed.
- **BEHAVIOR** Feeds while wading in shallow water by rhythmically sweeping its spoonbill back and forth. Sensitive nerve endings snap bill shut



on any prey encountered. Often quite tame. Individuals and flocks frequently found in company of other wading birds.

- **BREEDING** Monogamous. Colonial; often nests in mixed colonies with other wading birds.
- **NESTING** Incubation 22–24 days by both sexes. Young stay in nest 35–42 days. Fed by both sexes. Capable of strong flight in 49–56 days. 1 brood per year.
- **POPULATION** Fairly common but local. Virtually eliminated from US in 1860s as water colonies were destroyed. Recolonization began in Texas and Florida in early 20th century. Still vulnerable to degradation of feeding and nesting habitats.

Similar Birds

-  GREATER FLAMINGO
Much larger in size; entirely pink; longer legs and neck.
-  SCARLET IBIS
Much deeper red; slender decurved bill.

Flight Pattern

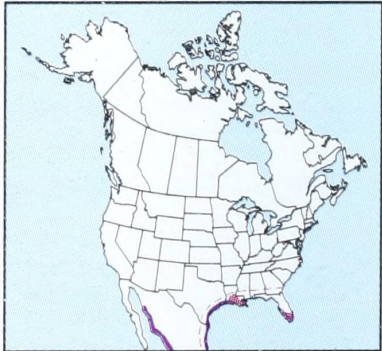


Steady flapping wing beats with short glides in between.

Nest Identification

Shape  Location 

Platform with deep hollow in center • made of sticks • lined with twigs and leaves • in mangroves, trees, and shrubs • usually 5–15 feet above ground or water • built by female with material from male • 1–5 white eggs, spotted with brown and occasionally wreathed, 2.6 inches long.



Plumage Sexes similar	Habitat 	Migration Some migrate	Weight Undetermined
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DATE _____ TIME _____ LOCATION _____

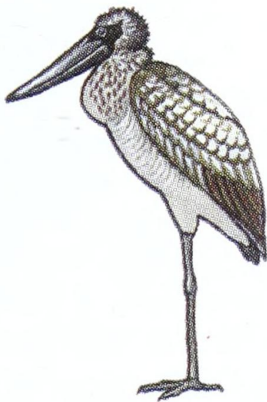
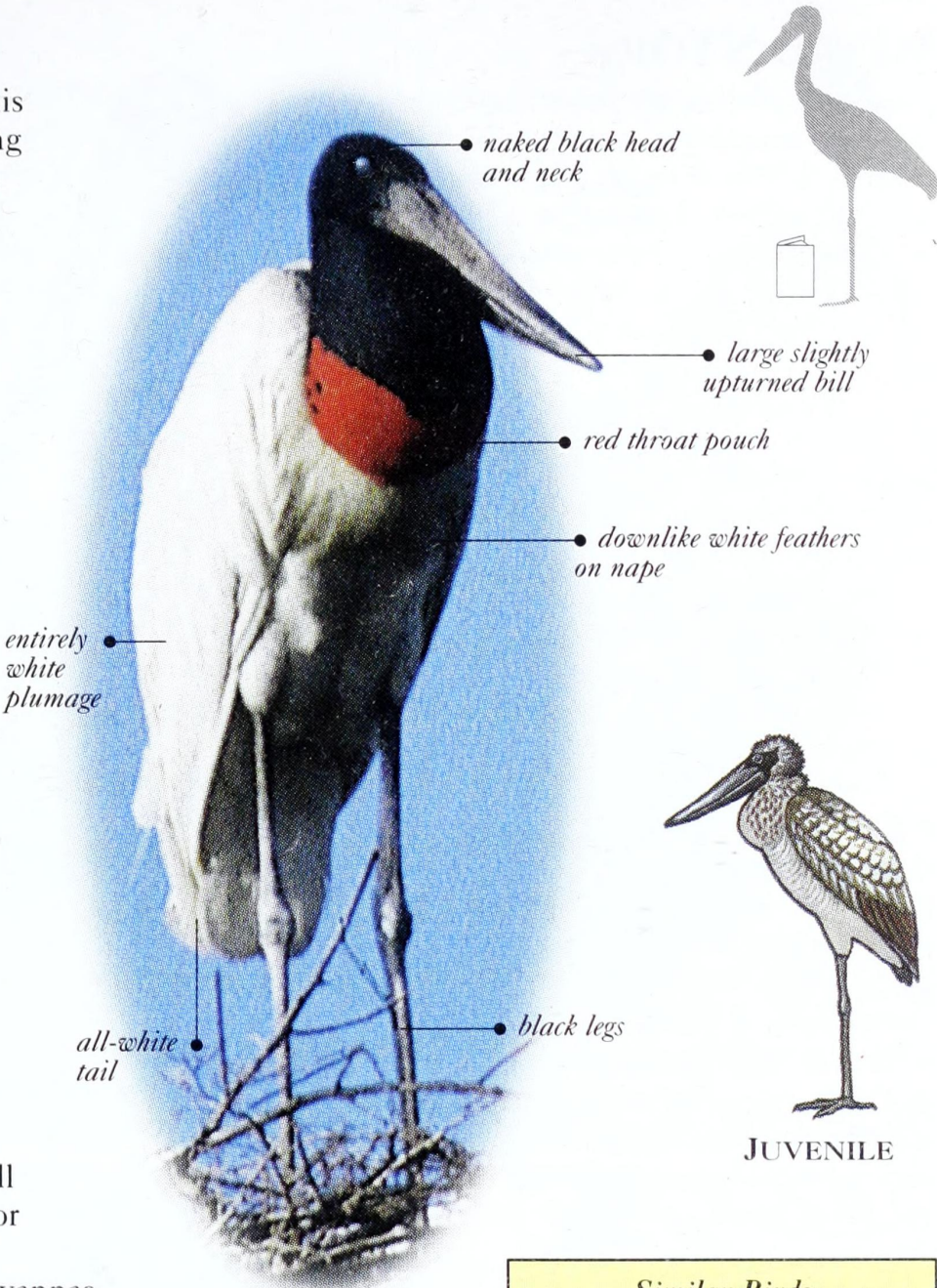
Family CICONIIDAE	Species <i>Jabiru mycteria</i>	Length 48–57 inches	Wingspan 90 inches
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JABIRU

With its long neck and legs, this wader is one of the largest flying birds. Unlike herons the Jabiru always flies with its neck fully extended forward and its legs extended behind. Long, broad wings are used for soaring. During breeding season the Jabiru's red pouch brightens and inflates. This huge stork is one of those rare to casual visitors you should look for in south Texas, where it may occur in the company of Wood Storks. Like them, the head and neck are naked, but they differ in showing an entirely white plumage. Juvenile has a sooty-brown head with a mottled brownish, gray and white body.

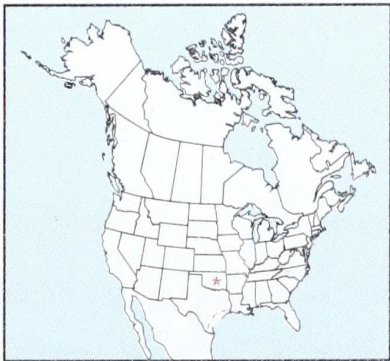
- **SONG** Typically silent. Utters low grunt and hisses. Rattles bill to communicate.
- **BEHAVIOR** Eats fish, eels, amphibians, small mammals, snakes, and birds. Stalks prey and stabs it with bill before eating. Usually solitary or in pairs; not in flocks. Wary. Frequents extensive marshy savannas, swampy woodlands, and sometimes agricultural areas such as rice fields.

- **BREEDING** Monogamous. Loosely colonial. Breeding depends on water levels and may vary from year to year. Nests during the dry season in Central and South America.



JUVENILE

Similar Birds	
	WOOD STORK Smaller; no red neck pouch; black tail and flight feathers.



Flight Pattern	
Flaps with slow deep wing beats often followed by short glide. Soars and circles like a hawk on thermals and updrafts.	

- **NESTING** No information available. Does not breed in North America.
- **POPULATION** Rare to accidental in south Texas and Oklahoma. Population declines in breeding range due to habitat loss and shooting.

Nest Identification	
Shape	Location
Sticks • huge; bird adds to it year after year • high in trees • 2–4 whitish eggs.	

Plumage Sexes similar	Habitat	Migration Migratory	Weight 15.2 pounds
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DATE _____ TIME _____ LOCATION _____

Family CICONIIDAE	Species <i>Mycteria americana</i>	Length 35–45 inches	Wingspan 65 inches
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WOOD STORK

Numbers of the only stork that breeds in North America are much reduced from their former levels. This large bird of southern wetlands and swamps appears all white on the ground, except for its bare grayish “flinthead” and upper neck, blackish gray legs with pink feet, and a black tail. In flight the trailing edge of the wings is black. Storks fly with legs and neck extended. Some wander northward after the breeding season in late summer and are irregularly recorded north to California, Tennessee, and Massachusetts; casually as far north as southern Canada. Many retreat to Florida in winter.

• **SONG** Usually silent. Adults clatter and snap bills during courtship and copulation. Adults also infrequently produce airy, low, rasping fizz or hiss reminiscent of Turkey Vulture.

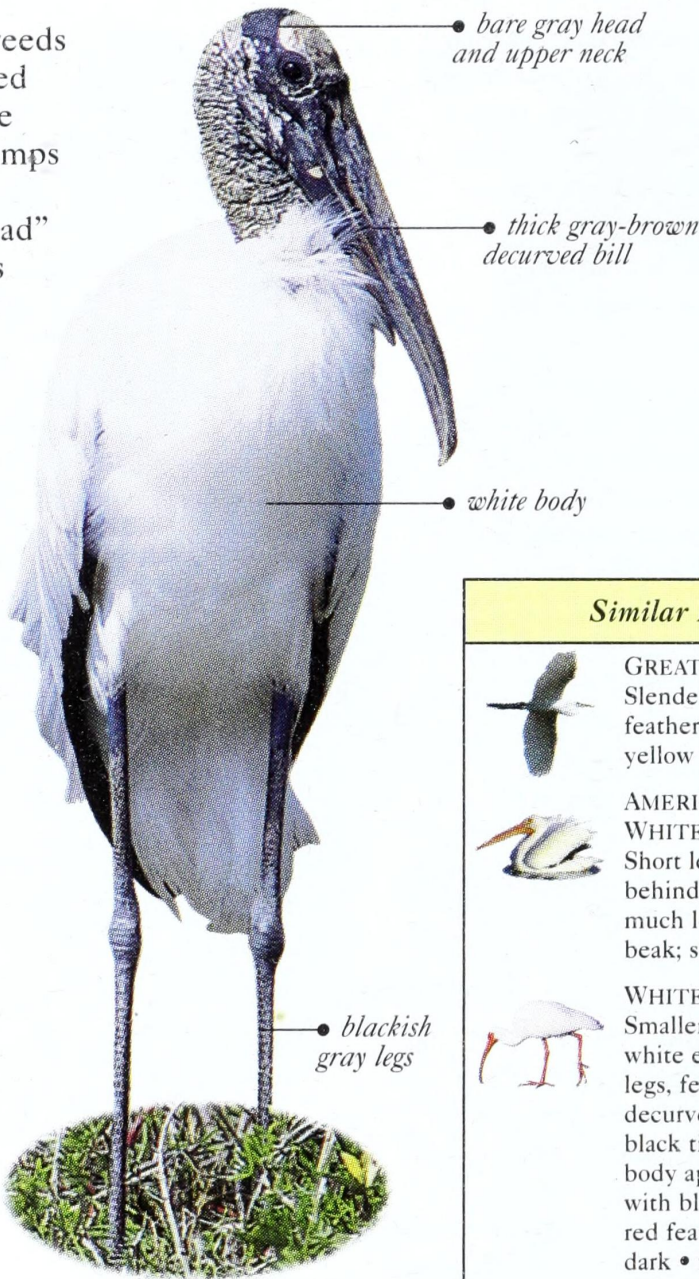
• **BEHAVIOR** Walks or wades in shallow water up to its belly with head down when feeding. Reproductive cycles triggered by drying up of waterholes that concentrate fish in sufficient numbers for efficient feeding of young.

• **BREEDING** Monogamous. Colonial.

• **NESTING** Incubation 27–32 days by both sexes. Young stay in nest 55–60 days. Fed by both sexes. 1 brood per year likely.

• **POPULATION** Fairly common. Destruction of habitat and disruption of water flow through south Florida major causes of decline. Recently shifted range to South Carolina.

• **CONSERVATION**
Endangered in US due to loss of breeding habitat.



JUVENILE

Similar Birds



GREAT EGRET
Slender white neck; feathered head; yellow beak.



AMERICAN WHITE PELICAN
Short legs don't trail behind white tail; much longer orange beak; shorter neck.



WHITE IBIS
Smaller; entirely white except for red legs, feet, face, and decurved bill with black tip • in flight, body appears white with black wing tips; red features may look dark • flight pattern differs, with several rapid wing beats alternating with a glide.

Flight Pattern



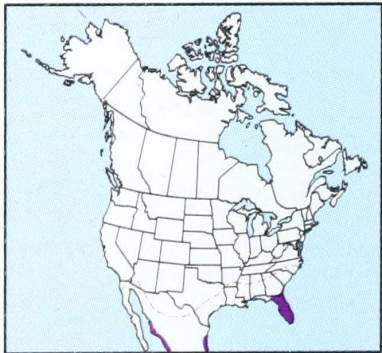
Alternates between strong flapping flight and gliding. Masterful at soaring, riding high on thermals.

Nest Identification

Shape 

Location 

Large sticks • lined sparsely with fine materials and green leaves • 50–80 feet above ground in large cypress trees standing in water • built by both sexes • 2–5 whitish eggs, elliptical to subelliptical, 2.7 inches long.



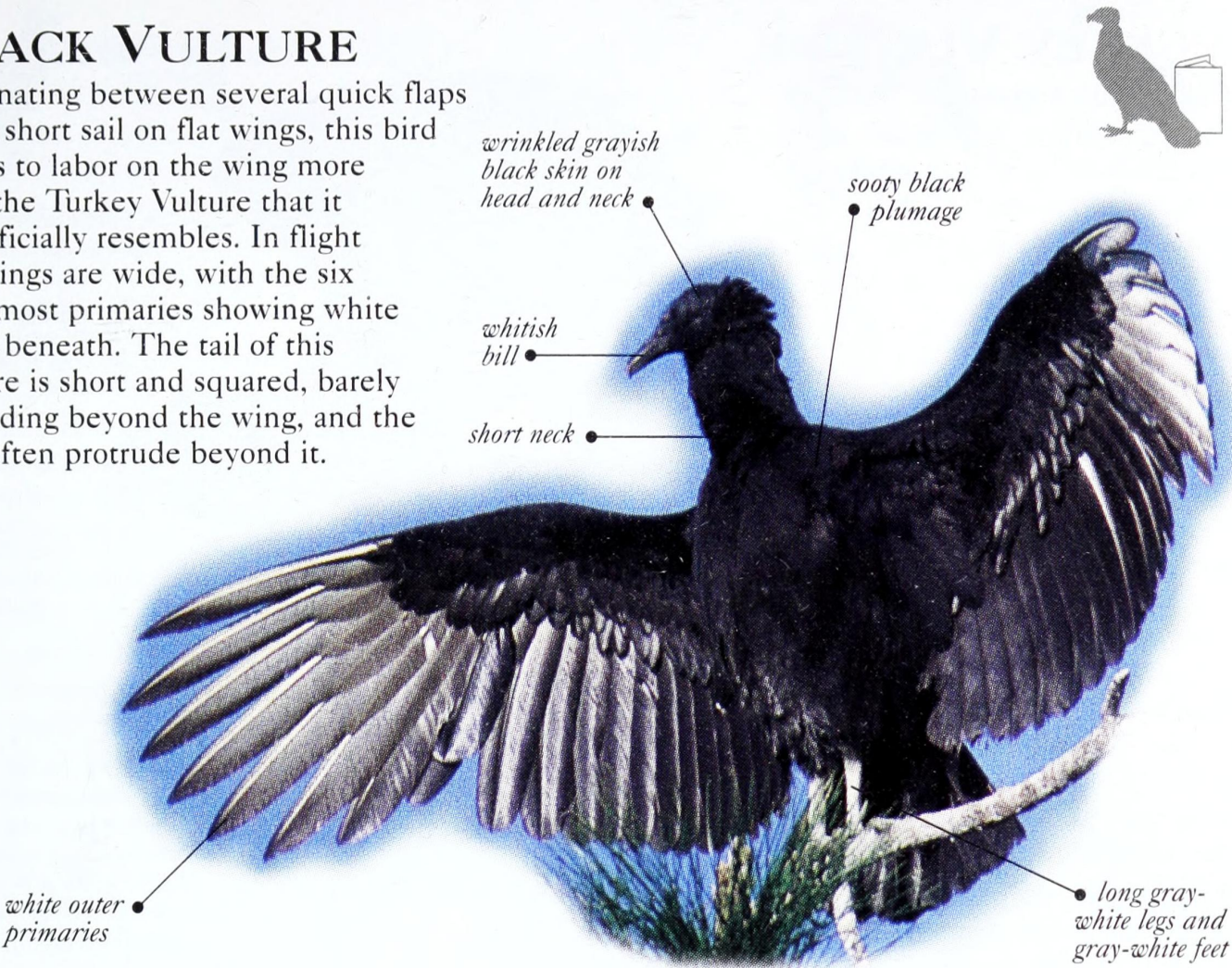
Plumage Sexes similar	Habitat 	Migration Nonmigratory	Weight 6.0 pounds
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DATE _____ TIME _____ LOCATION _____

Family CATHARTIDAE	Species <i>Coragyps atratus</i>	Length 23–27 inches	Wingspan 54–60 inches
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BLACK VULTURE

Alternating between several quick flaps and a short sail on flat wings, this bird seems to labor on the wing more than the Turkey Vulture that it superficially resembles. In flight the wings are wide, with the six outermost primaries showing white bases beneath. The tail of this vulture is short and squared, barely extending beyond the wing, and the feet often protrude beyond it.



- **SONG** Usually silent, but when competing for food it makes grumbling, barking, and hissing noises.
- **BEHAVIOR** Solitary or found in small to large groups. Often roosts communally. Diet consists primarily of carrion. Aggressive in nature for a vulture, it often dominates carrion when other species are present. Sometimes attacks and kills prey. It spreads its wings when on the roost, especially in the morning, to catch the ultraviolet rays of the sun.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 37–48 days by both sexes. Semialtricial young remain in nest 80–94 days, and are fed by both sexes.

1 brood per year.

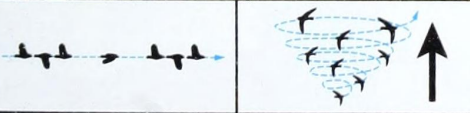
- **POPULATION** Fairly common to common. Decline in the Southeast has been due to the loss of safe nesting habitat. Overall, there has been a slight increase in the Northeast as range has expanded.

Similar Birds



TURKEY VULTURE
Bare red head (black on juvenile); long rectangular tail; 2-toned wings from below (black in front, silver-gray trailing edge); holds wings in dihedral when soaring.

Flight Pattern



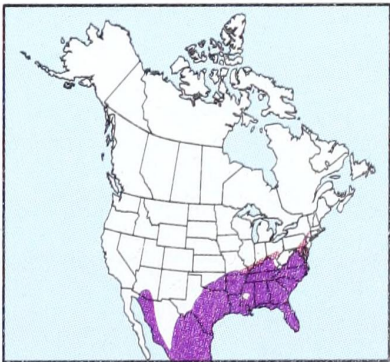
Several quick deep wing beats followed by a glide; soars on thermals.

Nest Identification

Shape 

Location 

No nest • lives in dark recesses or under cover in caves, hollow logs, stumps, tree trunks, or abandoned buildings • 2 light grayish green or bluish white eggs, usually marked with brown or lavender; elliptical ovate or elongate ovate, 3 inches long.



Plumage Sexes similar	Habitat _____	Migration Some migrate	Weight 4.8 pounds
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DATE _____ TIME _____ LOCATION _____

Family CATHARTIDAE	Species <i>Cathartes aura</i>	Length 26–32 inches	Wingspan 68–72 inches
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TURKEY VULTURE

Commonly known as a “buzzard,” this bird ranges throughout the United States and into southern Canada and south to South America. It gets its name from the red skin on its head and dark body feathers that resemble a turkey. This carrion feeder is perhaps most often seen in flight, when its two-tone wings, black in front and silver-gray flight feathers behind, are most visible. Soaring birds hold their wings above their backs in a shallow V called a dihedral and rock from side to side as if unsteady in the air.

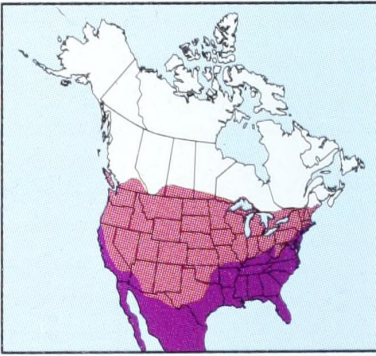
- **SONG** Usually silent. Makes hisses, grunts, or growls around food.
- **BEHAVIOR** Circles just above treetops and up to 200 feet high, searching for prey by smell and sight. Birds gather quickly after an animal dies. Feeds primarily on fresh or rotten carrion. Also eats roadkill (many become victims to autos themselves); stillborn livestock and afterbirth; and dead young of egrets, herons, ibis, and similar species, at heronries. Has been known to eat vegetables and even pumpkins if shortage of food. Master at soaring. Often roosts communally at night.
- **BREEDING** Monogamous.
- **NESTING** Incubation 38–41 days by both sexes. Semialtricial young stay in nest 66–88 days; both sexes feed by regurgitating. 1 brood per year.



JUVENILE

Similar Birds

-  **BLACK VULTURE**
Very black, including head and stubby tail; longer whiter legs often protrude beyond tail in flight; white primaries under wing tip; flaps and glides more.
-  **GOLDEN EAGLE**
Much larger; looks heavier; shorter fan-shaped tail; larger feathered head; large strongly hooked yellow beak; flies with wings held in flat plane.
-  **ZONE-TAILED HAWK**
Black; feathered head; bold white tail bands; barred black flight feathers; yellow cere, legs, and feet.



Flight Pattern



Circles with wings in shallow V and rocks unsteadily; moderately slow steady wing beats when not soaring.

Nest Identification

Shape 

Location 

- **POPULATION** Common. Very slight overall increase.
- **CONSERVATION** Remarkably resistant to most diseases, especially those likely to be present in carrion.

Bare floors of caves, rock outcroppings, hollow trees, empty buildings, and rocks on cliffs • 1–3 white or cream eggs, often splashed with brown; subelliptical, long oval, or elliptical, 2.8 inches long.

Plumage Sexes similar	Habitat 	Migration Migratory	Weight 3.2 pounds
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DATE _____ TIME _____ LOCATION _____

Family PHOENICOPTERIDAE	Species <i>Phoenicopterus ruber</i>	Length 36–50 inches	Wingspan 60 inches
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GREATER FLAMINGO

Also known as the American Flamingo, this shy bird is distinguished by its unique bill, long neck, long legs, and brilliant pink color. The brightest pink coloring can be found on the undersurface of the wing, on the axillars and underwing coverts. The flamingo is an excellent swimmer, but it usually is observed on extensive mudflats or wading in the shallows adjacent to them, with its bill, and sometimes head, submerged as it slowly walks ahead filtering food from the ooze.

• **SONG** Honking and cackling. Low *onk* and *ohrn* and higher *aah* *AAH* *aah*. A flock sounds gooselike or like a group of frogs calling.

• **BEHAVIOR** Feeds in water of any wading depth. Immerses bill in water and sucks up organically rich bottom ooze from which it filters out edible content with its bill and tongue. Feeds primarily on planktonlike macroscopic organisms, including algal material, bacteria diatoms, plankton, tiny fish, and brine fly larvae.

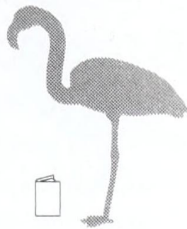
• **BREEDING** Monogamous. Social and colonial.

• **NESTING** Incubation 28–32 days by both sexes. Fed by both sexes 3–4 days with nutritious red liquid secreted by glands in parents’ digestive tract. Chicks then are herded into a group called a creche. Young have short straight bills first 40 days. First flight at 75–77 days.

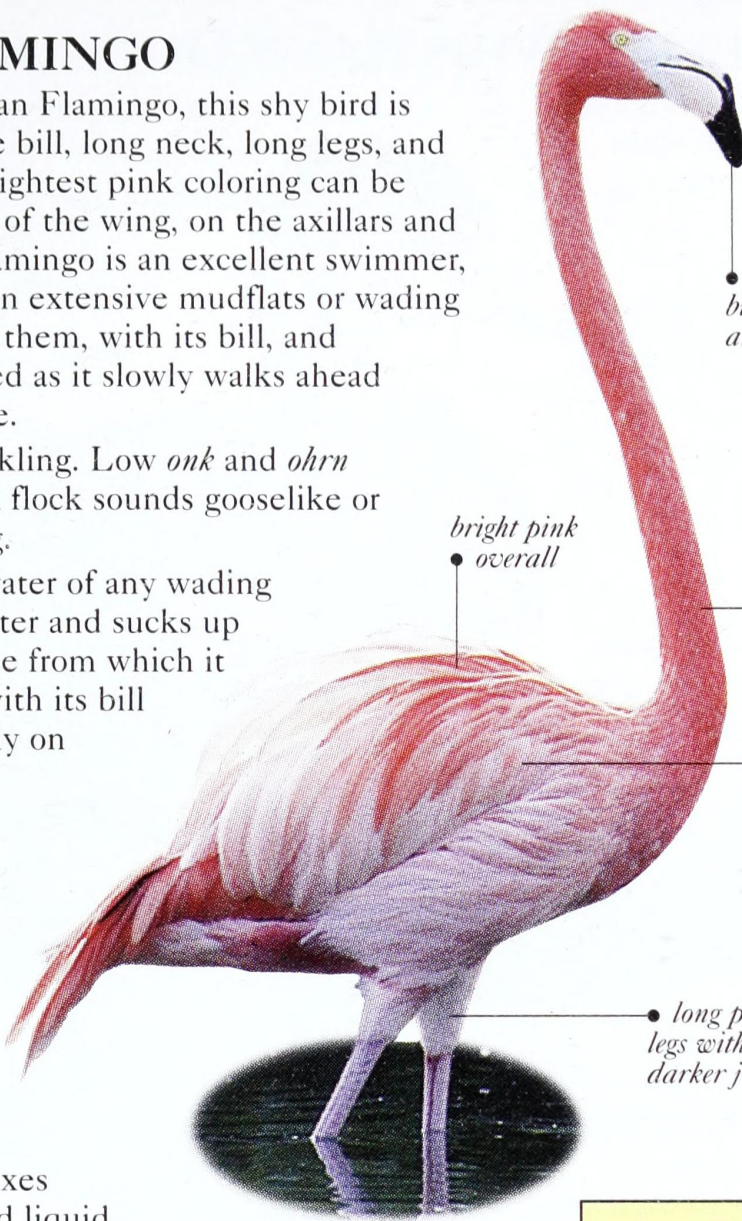
• **POPULATION** Casual in south Florida; accidental elsewhere, principally on Texas coast. Most records in US may be escapees from captivity, especially those in Florida, but there is a very small nesting population of unknown origins in Florida Bay. Caribbean population rose from 12,000 birds in 1971 to

26,000 in the mid-1980s, probably due to protection of the primary nesting and wintering grounds.

• **CONSERVATION** Some protection in Caribbean breeding areas, but much greater efforts are needed.



flattened, bent pink bill with black tip and creamy pink base



bright pink overall

very long neck

pale scapulars

long pink legs with darker joints

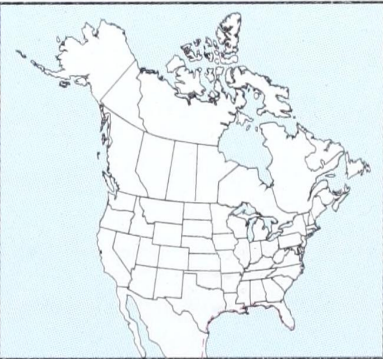


JUVENILE

Similar Birds



ROSEATE SPOONBILL
Long, straight greenish gray spatulate bill; greenish gray bare head; white back, neck, and breast; shorter legs and neck.



Flight Pattern

Direct flight with rapid wing beats in long lines with neck extended forward and legs trailing. Flies in straight line formation.

Nest Identification

Shape Location

Raised cone-shaped nest of mud on mudflats • built by female with assistance from male • cone usually 6–18 inches high and 17–20 inches in diameter at base with hollowed top • may be 2 feet apart or closer • usually 1 chalky white egg.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 7.8 pounds
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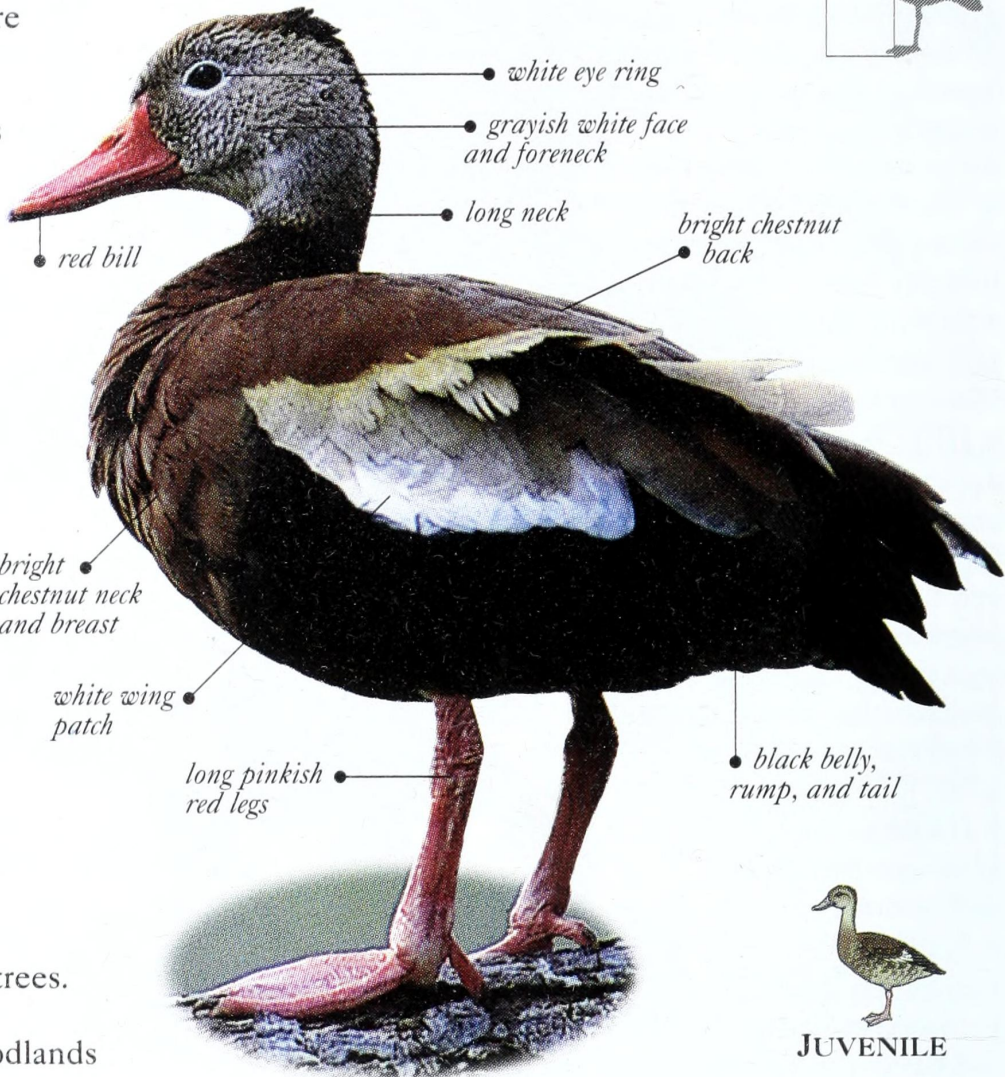
DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Dendrocygna autumnalis</i>	Length 19–22 inches	Wingspan 34–36 inches
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BLACK-BELLIED WHISTLING-DUCK

This gooselike duck with long legs and neck is much more common in the American tropics. In flight its long white wing patch contrasts sharply with the black flight feathers, and the reddish feet protrude beyond the black tail. It is the only North American duck with an entirely red spatulate bill. Juveniles are paler above and below, lacking the black belly and having bars of black mottling on their sides, flanks, and lower bellies; bills are gray.

- **SONG** High-pitched 4-note whistle, *pe-che-che-ne* or *wha-chew-whe-whe-whe-whe*, often is given in flight.
- **BEHAVIOR** Often in small groups. Flocks on shallow water; perches in trees. Feeds primarily at night. Frequently retreats to woodlands when disturbed; easily maneuvers between trees. Primary diet aquatic vegetation, cultivated grains, and seeds.
- **BREEDING** Monogamous.
- **NESTING** Incubation 25–30 days by both sexes, but primarily by male. Young precocial; leave nest 18–24 hours after hatching. Tended by both sexes for at least 144 days. Possibly 2 broods per year. “Dump” nests produced by more than one female



Flight Pattern

Direct flight with strong rapid wing beats.

Nest Identification

Shape Location

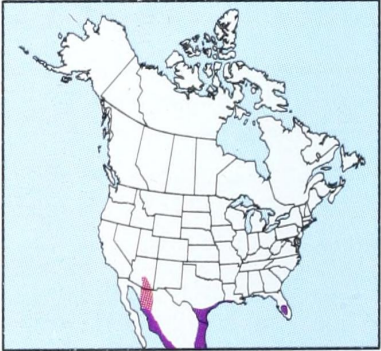
laying eggs in a single nest are common, which results in documented nests containing more than 100 eggs.

- **POPULATION** Uncommon to casual. Local.
- **BIRDHOUSES** Will nest in tree boxes.

8–30 feet above ground in elms, willows, and other trees • also on ground among rushes, weeds, or grasses near water’s edge • built by female • 12–16 white or creamy white eggs, 2 inches long.

Similar Birds

FULVOUS WHISTLING-DUCK
Gray bill, legs, and feet; paler brown plumage; lacks black belly.



Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.8 pounds
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DATE _____ TIME _____ LOCATION _____

Family ANATIDAE

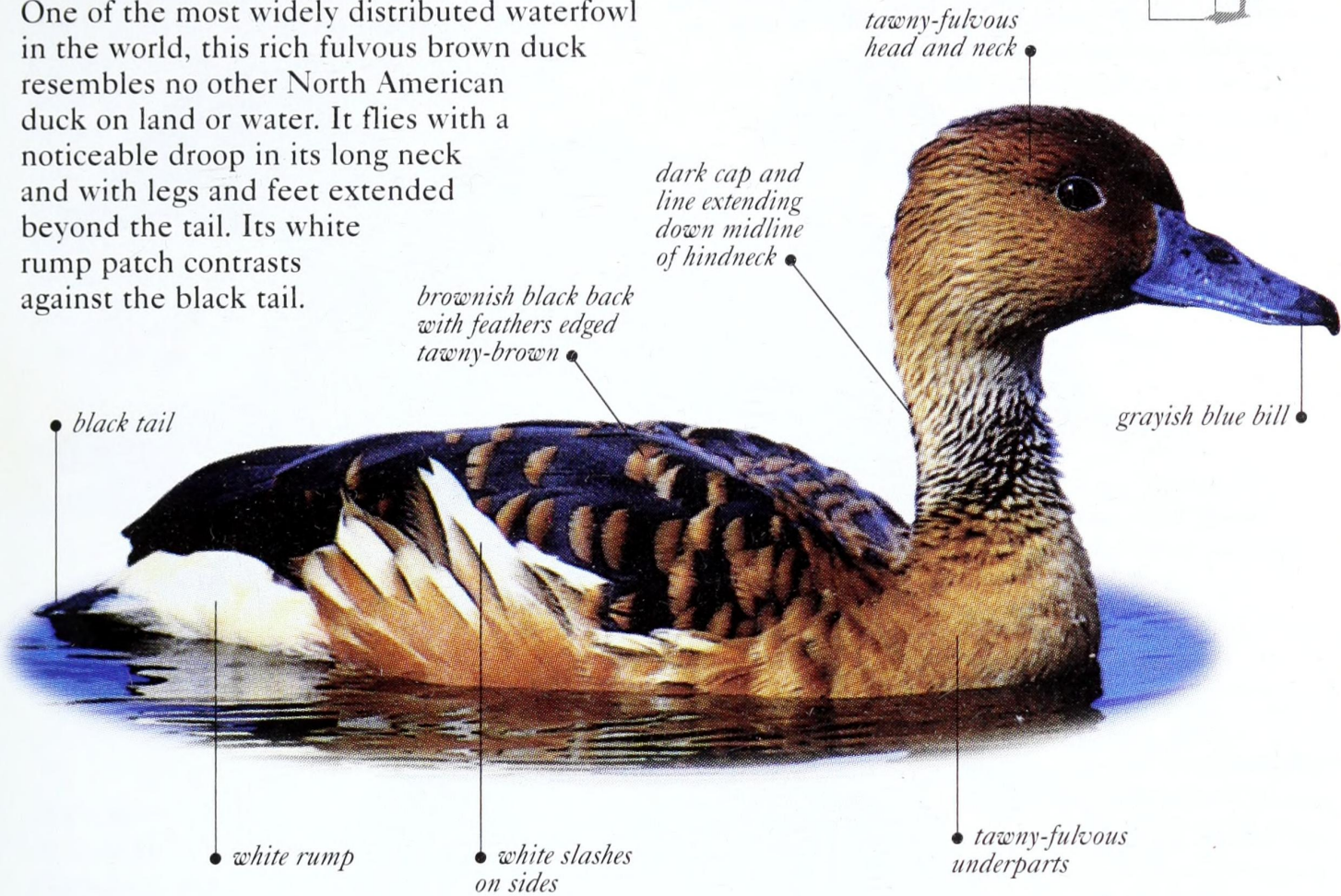
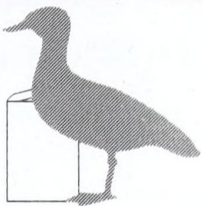
Species *Dendrocygna bicolor*

Length 18–21 inches

Wingspan 36 inches

FULVOUS WHISTLING-DUCK

In its upright stance with its long legs and neck, this duck is somewhat goselike in appearance. One of the most widely distributed waterfowl in the world, this rich fulvous brown duck resembles no other North American duck on land or water. It flies with a noticeable droop in its long neck and with legs and feet extended beyond the tail. Its white rump patch contrasts against the black tail.

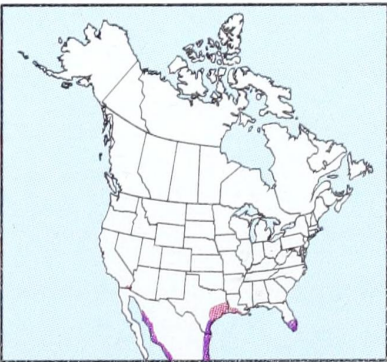


- **SONG** High squeaking 2-syllable whistle, *pe-chee*, usually is given while bird is in flight.
- **BEHAVIOR** Feeds at night. Walks on land. Eats grass and weed seeds. Forages in fields for waste grain; seems to be particularly fond of rice. Roosts by day in dense vegetation. Often found in large flocks.
- **BREEDING** Monogamous.
- **NESTING** Incubation 24–26 days by both sexes. Young stay in nest 55–63 days. Young tended by both sexes but find own food. 1 brood per year.

Similar Birds



BLACK-BELLIED WHISTLING-DUCK ♂
Bold white wing stripe in flight; black belly; red bill, legs, and feet.



Flight Pattern



Direct heronlike flight with slow deep wing beats.

- **POPULATION** Uncommon to fairly common locally. Decline in Southwest; increase in Southeast.
- **CONSERVATION** Considered a “pest” species by some rice farmers in the South.

Nest Identification



Woven grass, sedges, and cattails • no down added • on ground next to water or in dense marsh just above water in bulrushes or dense beds of cattails • rarely in tree cavity • built by female • 12–14 white or buff-white eggs; bluntly ovate, short ovate, or oval; 2.1 inches in diameter.

Plumage Sexes similar

Habitat

Migration Migratory

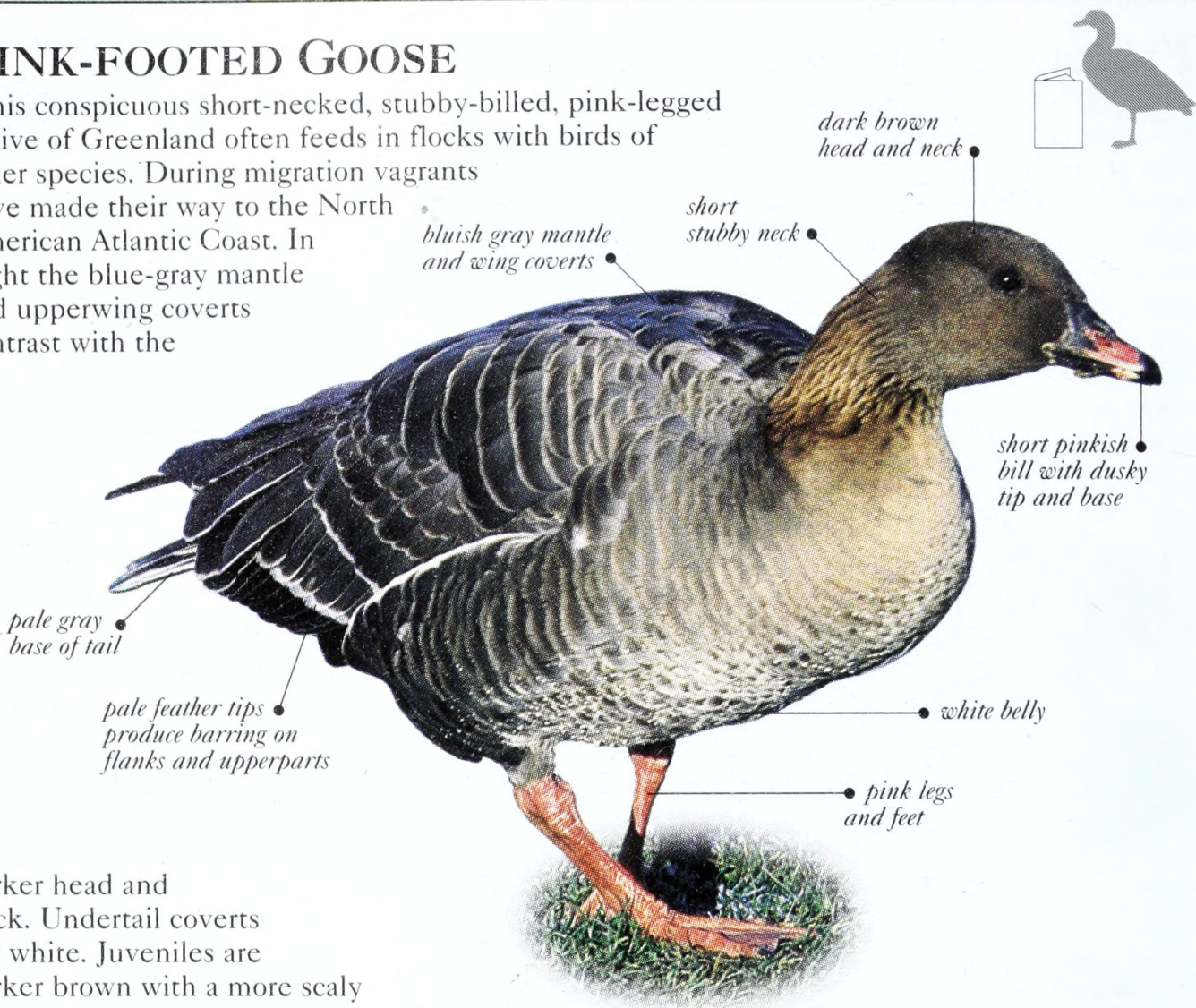
Weight 1.6 pounds

DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Anser brachyrhynchus</i>	Length 26 inches	Wingspan 13–17 inches
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PINK-FOOTED GOOSE

This conspicuous short-necked, stubby-billed, pink-legged native of Greenland often feeds in flocks with birds of other species. During migration vagrants have made their way to the North American Atlantic Coast. In flight the blue-gray mantle and upperwing coverts contrast with the



darker head and neck. Undertail coverts are white. Juveniles are darker brown with a more scaly appearance on the sides, flanks, and back.

- **SONG** Utters harsh high musical honking notes *ung-unk* or *wink, wink*.
- **BEHAVIOR** In family groups; young feed close to parents. Often join flocks of other species. In summer feeds on grass and aquatic vegetation; in winter eats grains, grasses, and potatoes. Breeds on open tundra and rocky country. Some winter in British Isles and western Europe on farmland in salt marshes.
- **BREEDING** Monogamous. Colonial or semicolonial.
- **NESTING** Incubation 26–27 days by female. Precocial young leave nest soon after hatching. Tended by both sexes. First flight at about 56 days. 1 brood per year.

Flight Pattern	
Swift purposeful direct flight with strong wing beats. Flies in V formation.	

Nest Identification	
Shape	Location
Shallow scrape on ground • lined with moss and down from female • 3–5 cream eggs; subelliptical, 3.1 inches long.	

Similar Birds

GREATER WHITE-FRONTED GOOSE
Larger pink to orange bill; orange legs and feet; distinct white patch at base of bill; shows dark mottled patches on belly.



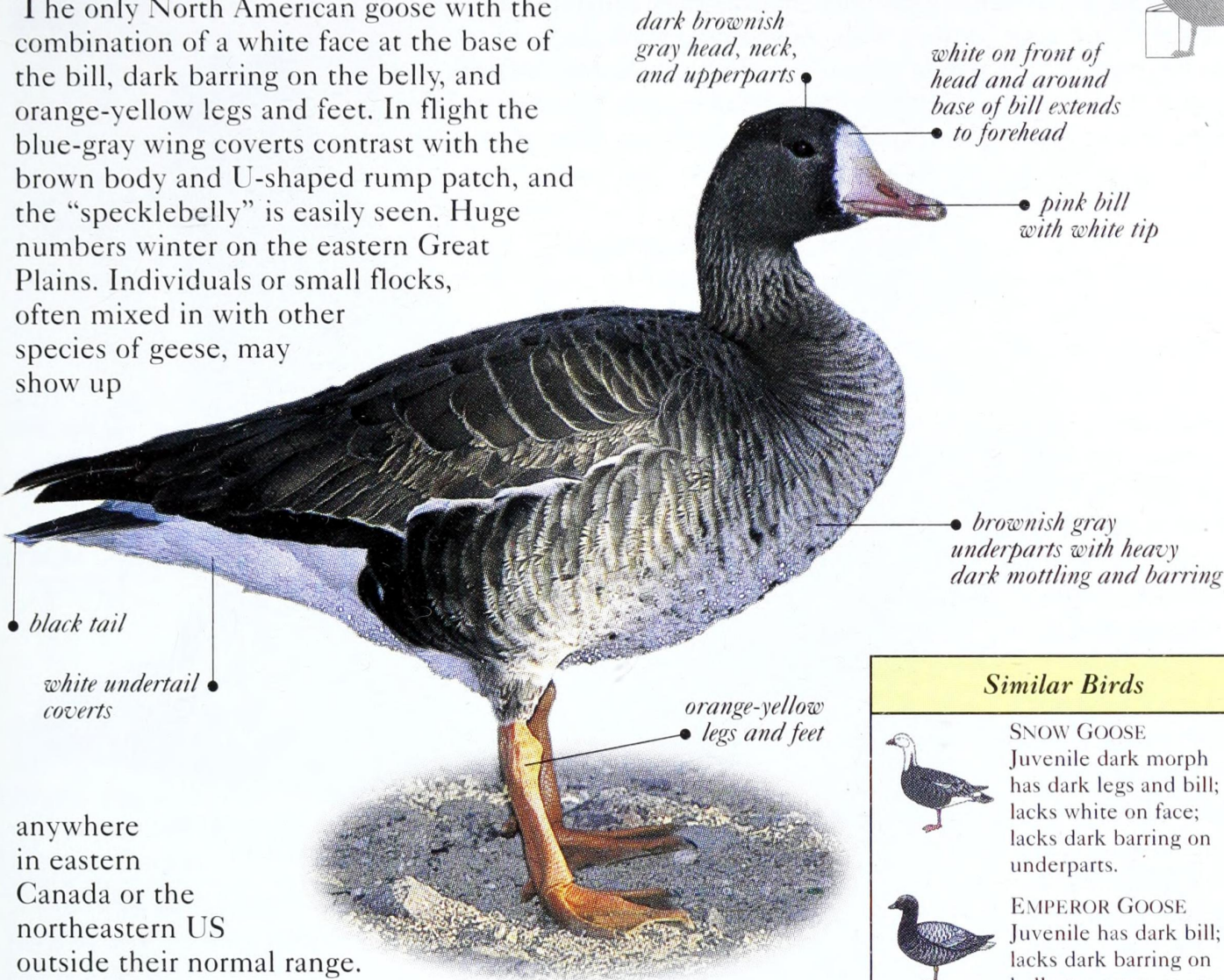
Plumage Sexes similar	Habitat	Migration Migratory	Weight 6.1 pounds
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DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Anser albifrons</i>	Length 26–34 inches	Wingspan 53–62 inches
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GREATER WHITE-FRONTED GOOSE

The only North American goose with the combination of a white face at the base of the bill, dark barring on the belly, and orange-yellow legs and feet. In flight the blue-gray wing coverts contrast with the brown body and U-shaped rump patch, and the “specklebelly” is easily seen. Huge numbers winter on the eastern Great Plains. Individuals or small flocks, often mixed in with other species of geese, may show up



anywhere in eastern Canada or the northeastern US outside their normal range.

- **SONG** High-pitched laughing *kah-lah-aluek* and loud *wah-wah-wah*.
- **BEHAVIOR** Dabbles and walks well on land. Feeds on grasses, grain, aquatic plants, and insects. Favors freshwater pools, lakes, and marshes. In winter found in grasslands and agricultural fields. Flies high in V formations with clamorous “talking” among individuals in flock.
- **BREEDING** Monogamous.

Flight Pattern

Steady direct flight with rapid wing beats. Flies in V formation.

Nest Identification

Shape Location

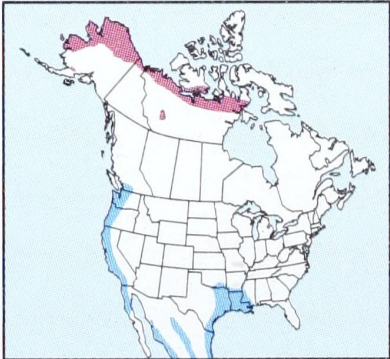
- **NESTING** Incubation 22–28 days by female. Young precocial; first flight at 38–49 days. Tended by both sexes. 1 brood per year.
- **POPULATION** Common to fairly common. Midcontinent numbers increasing.

Similar Birds

SNOW GOOSE
Juvenile dark morph has dark legs and bill; lacks white on face; lacks dark barring on underparts.

EMPEROR GOOSE
Juvenile has dark bill; lacks dark barring on belly • western range.

BEAN GOOSE
Black bill with yellow band near tip; gray-brown overall; darker brown on upperparts; orange feet and legs; whitish center to belly • western range.



Plant material and down • on ground near water in open, wet tundra • built by female • 3–6 buff, cream, pinkish white, or nest-stained eggs; elliptical to ovoid, 3.1 inches long.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 6.0 pounds
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DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Chen caerulescens</i>	Length 25–31 inches	Wingspan 53–60 inches
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SNOW GOOSE

This species comprises two color morphs that, until the last quarter of the 20th century, were considered separate species: Snow Goose for the white morph and Blue Goose for the dark or blue morph. The plumage of the white morph is entirely white in adults except for black primary feathers. Blue morph adults have a white head and neck with a dusky gray-brown body and white tail coverts.

• **SONG** Shrill falsetto notes and occasional softened honk. High-pitched nasal barking continuously in chorus in flight.

• **BEHAVIOR** Flies in bunched flocks or in broad U formations. Dabbler that walks easily on land. Grazes on tender shoots, waste grain, and other vegetable matter. Color morphs tend to segregate on breeding grounds, but mixed partners sometimes do pair and nest.

• **BREEDING** Monogamous. Colonial; densities of up to 1,200 pairs per square mile.

• **NESTING** Incubation 23–25 days by female. Precocial young leave nest soon after hatching, tended by both parents. First flight at 38–49 days.

1 brood per year.

• **POPULATION** Very common to abundant.

Increasing overall, with blue morph increasing and white morph decreasing because of selection by predators on breeding grounds and hunters on wintering grounds.

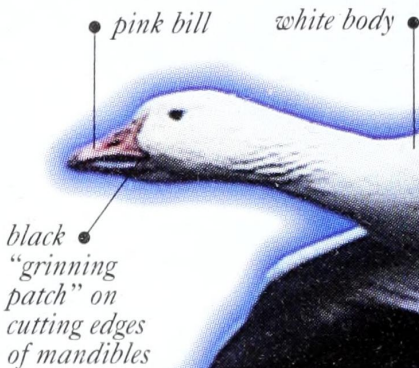
• **CONSERVATION** Some management in certain areas of breeding range to prevent overpopulation and destruction of habitat by increased populations.



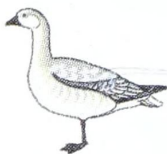
black primaries



DARK MORPH ADULT



WHITE MORPH ADULT



WHITE MORPH JUVENILE



DARK MORPH JUVENILE

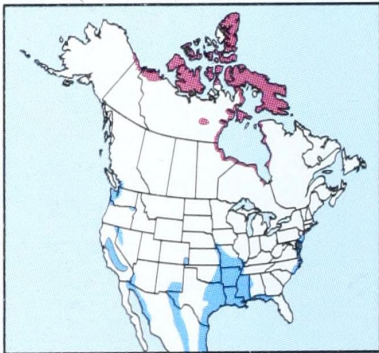
Similar Birds



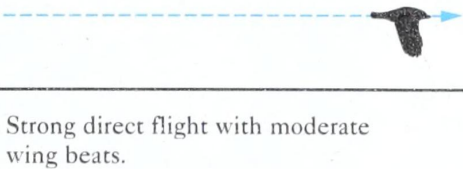
ROSS'S GOOSE
Smaller; short, stubby bill; rounder head; lacks grinning patch.



EMPEROR GOOSE
Similar to blue morph
• black throat and foreneck; bright orange-yellow legs and feet
• western range.



Flight Pattern



Nest Identification

Shape  Location 

Built by female • filled with mosses • lined with grasses and down • 3–5 white or nest-stained eggs, 3.2 inches long.

Plumage Sexes similar	Habitat 	Migration Migratory	Weight Undetermined
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DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Chen rossii</i>	Length 21–26 inches	Wingspan 47–54 inches
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ROSS’S GOOSE

Often seen with the Snow Goose, North America’s smallest goose is said to have a gentle expression. Like the Snow Goose, Ross’s Goose has both a white morph and a very uncommon blue morph. It can be distinguished from the Snow Goose from a distance by its smaller size and shorter neck and at closer range by its stubby triangular bill, which lacks the “grinning patch.” In flight it has faster wing beats than the Snow Goose.

black wing tips

round head

short neck

stubby, triangular, deep pinkish red bill with warty bluish base

snow-white body

- **SONG** Low throaty *kug* or weak *kek*, *kek* or *ke-gak*, *ke-gak*. Similar to call of smaller races of Canada Goose.
- **BEHAVIOR** Eats fresh grasses and grains. Often can be seen feeding with Snow Geese.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 21–24 days by female. Tended by both sexes. First flight at 40–45 days. 1 brood per year.
- **POPULATION** Rare to uncommon in migration and outside its wintering grounds in California, New Mexico, and the states along the lower Mississippi River. Fairly common on its breeding grounds.

WHITE MORPH



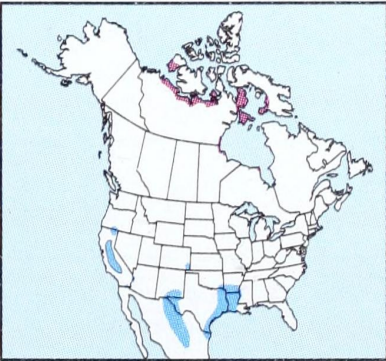
BLUE MORPH

Similar Birds



SNOW GOOSE
Longer neck and bill; has “grinning patch” on cutting edge of bill; flatter head; rusty stains often visible on face in summer; slower wing beats.

- **CONSERVATION** Numbers were decimated by market hunting, especially in California, until it was regulated early in the 20th century. Populations increased in the last half of the 20th century.



Flight Pattern

Rapid direct flight with strong wing beats. Flies in V formation.

Nest Identification

Shape Location

Soft grasses, moss, and twigs • lined with small amount of down • built by female • 4–5 white eggs; subelliptical, 2.9 x 1.9 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 3.7 pounds
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DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Branta canadensis</i>	Length 25–45 inches	Wingspan 75 inches
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CANADA GOOSE

Found in every province and state at some time of the year, this is the most common, familiar, and widespread goose in North America. Breeding programs in the 20th century established or reestablished populations in the southern part of the range. Size varies tremendously over the vast range, from 22-inch Mallard-sized arctic birds to giant geese reaching 45 inches and weighing 24 pounds.

• **SONG** Small races make high rapid cackle; large races make deep, musical *honk-a-lonk*.

• **BEHAVIOR**

Mates for life. Unlike most waterfowl but like most other geese, family units remain together through winter and until they return to breeding grounds. Dabblers and grazers; walk well on land. Feeds on variety of aquatic and terrestrial plants.

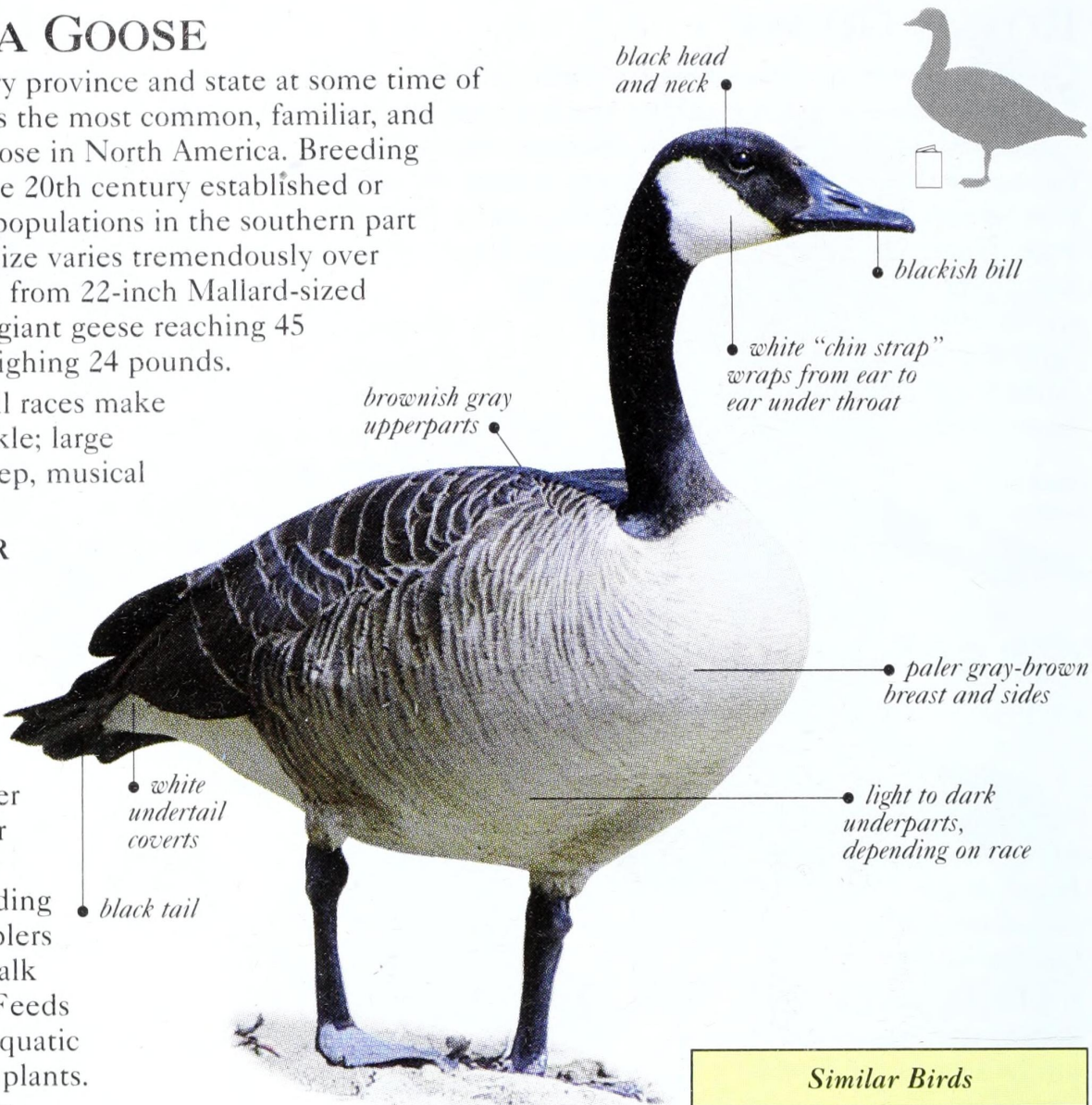
• **BREEDING**

Monogamous.

• **NESTING** Incubation

25–30 days by female. Young leave nest at 1–2 days. First flight at 42–49 days for smaller races, 56–63 days for larger races. Young feed themselves with parents' help.

• **POPULATION** Common to abundant. Species as a whole probably still increasing.



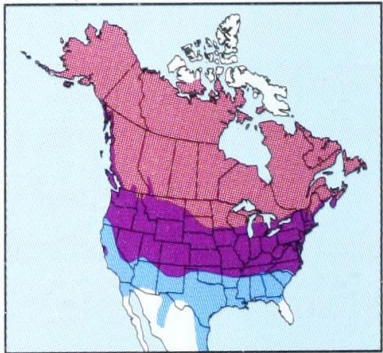
Similar Birds



BRANT
Lacks white chin strap; black breast.



BARNACLE GOOSE
Entirely white face; black breast; white sides • eastern range.



Flight Pattern	
Strong direct flight with deep wing beats. Flies in V formation.	

• **CONSERVATION** Widely harvested as a game bird; highly managed on breeding grounds, wintering areas, and migratory staging areas. Widely introduced to establish new populations or restore extirpated ones.

Nest Identification	
Shape	
Location	

Sticks, grass, weeds, and moss • lined with down • on slightly elevated dry ground near water • will nest on man-made structures and nest platforms • built by female • 4–7 white, nest-stained eggs, 2.9 inches in diameter.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 8.4 pounds
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DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Branta bernicla</i>	Length 22–26 inches	Wingspan 43–48 inches
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BRANT

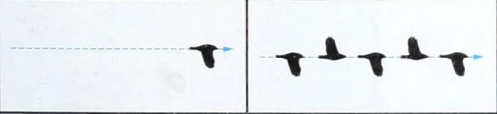
A tundra species most often seen wintering along sea coasts, this small short-necked goose is not much larger than a Mallard. The two races in North America differ in appearance. Both have dark brown backs, but whereas the western bird has a dark belly, the eastern form has a paler one and its white patches do not meet at the front of the neck. In both plumages the white rump is conspicuous in flight.

- **SONG** Call is throaty drawled *c-r-r-onk, crr-ronk*.
- **BEHAVIOR** Often flies low in ragged bunches with position of birds changing often and without appearance of a leader. Incubating

birds sit tightly on nest and lie low with neck and head stretched flat, blending with surrounding tundra. Relatively tame. Feeds primarily on vegetable matter.

- **BREEDING** Monogamous. Mates for life. Forms loose colonies.
- **NESTING** Incubation 22–26 days by female. First flight at 40–50 days. Tended by both sexes.
- **POPULATION** Common and local. May be declining.
- **CONSERVATION** A die-off of eelgrass, a major source of food for the Brant, on the Atlantic Coast in the 1930s had serious impact on population. No long-term damage reported, because the Brant switched to another food source. Eelgrass made a partial recovery.

Flight Pattern

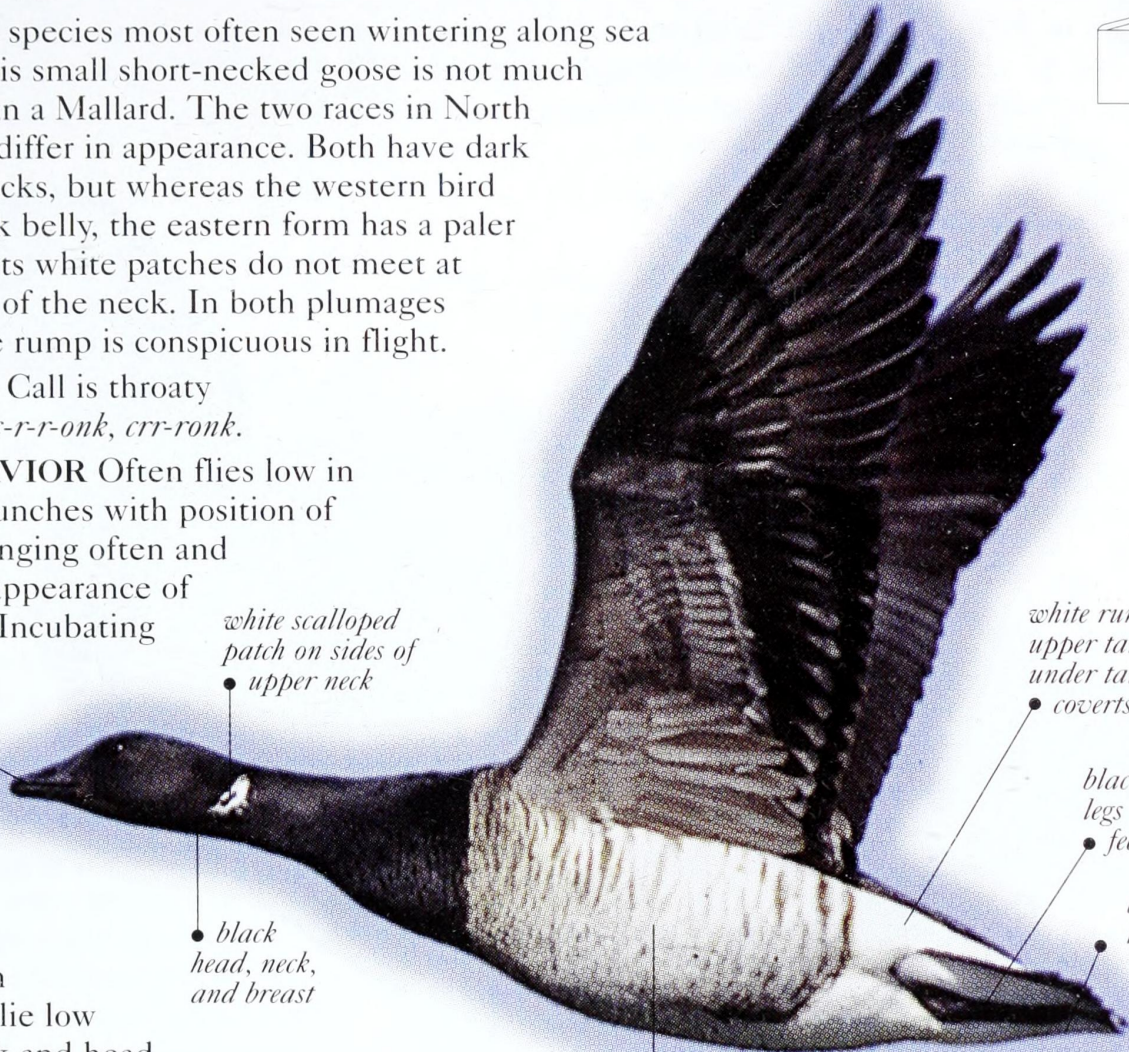
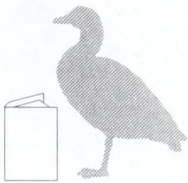


Heavy direct flight with strong wing beats. Flies in straight line formation.

Nest Identification

Shape  Location 

Shallow bowl of grass and other materials • heavily lined with down • on small island in tundra pond, usually 1–5 miles from coast • built by female • 1–7 creamy white or buff eggs; subelliptical to elliptical, 2.9 inches in diameter.



- blackish bill
- white scalloped patch on sides of upper neck
- black head, neck, and breast
- dusky brown bars on sides and flanks
- white rump, upper tail and under tail coverts
- blackish legs and feet
- black tail

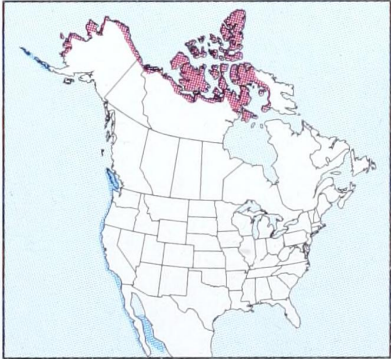
Similar Birds



CANADA GOOSE
Larger; longer neck; large white “chin strap”; pale brown breast.



BARNACLE GOOSE
Whitish face and sides • eastern range.



Plumage Sexes similar	Habitat 	Migration Migratory	Weight 3.0 pounds
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DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Branta leucopsis</i>	Length 23–28 inches	Wingspan 52–56 inches
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BARNACLE GOOSE

A stray from its breeding grounds in eastern Greenland to the north Atlantic Coast, this bird is kept by waterfowl fanciers, so birds observed inland are possible escapees. In flight birds show a U-shaped white rump patch and silvery underwing linings, and they are clamorous with hoarse barking terrier-like calls.

- **SONG** High piercing yelps. Frequently hisses when disturbed.
- **BEHAVIOR** Terrestrial species that grazes



primarily near seacoasts and in pastures, grain fields, and meadows. Often places nests on inaccessible rock shelves on cliffs or on rocky pillars that are safe from many predators, which makes escape from nest difficult to impossible for young. Adults reported to transport young from nest to ground or water in their bills or on their backs.

Flight Pattern



Strong direct flight with steady wing beats. Flies in V formation.

Nest Identification

Shape 

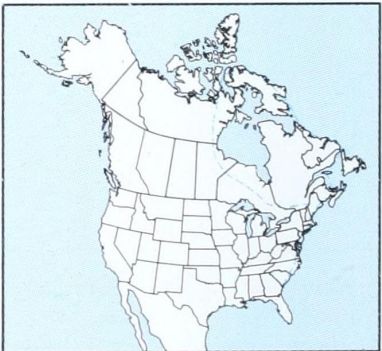
Location 

- **BREEDING** Monogamous. Scattered colonies.
- **NESTING** Incubation 24–25 days.
- **POPULATION** Casual to accidental; occasionally strays to North America from Greenland and Siberia.

Similar Birds



BRANT
CANADA GOOSE
Dark under wing, forehead, and face; sides not white.



Lined with feathers and down • in sand or on rock, often far from saltwater
• 4–6 gray-white to yellowish eggs.

Plumage Sexes similar	Habitat 	Migration Migratory	Weight 3.9 pounds
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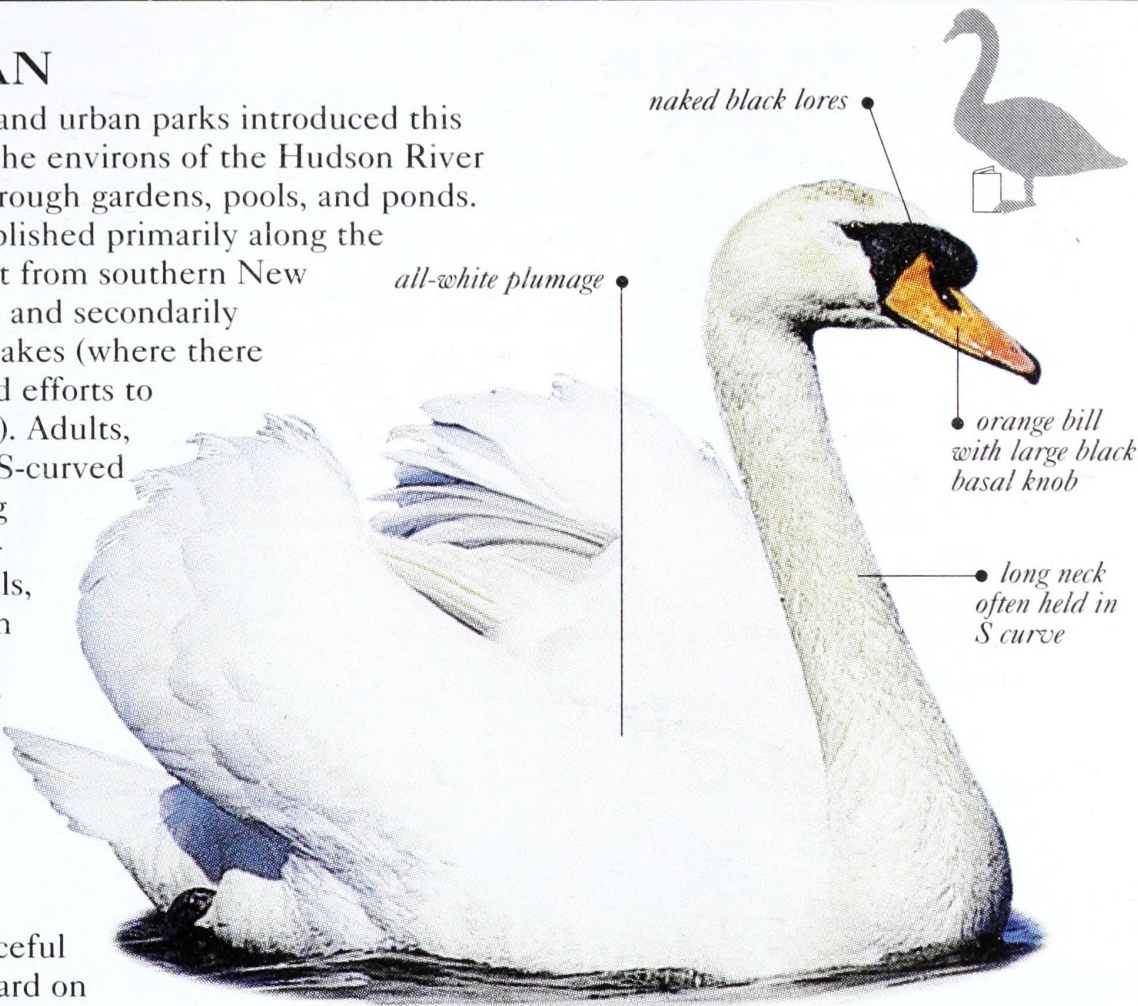
DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Cygnus olor</i>	Length 56–62 inches	Wingspan 7–8 feet
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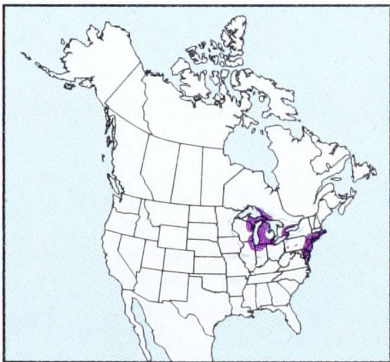
MUTE SWAN

Affluent residents and urban parks introduced this European swan to the environs of the Hudson River and Long Island through gardens, pools, and ponds. It has become established primarily along the north Atlantic Coast from southern New England to Virginia and secondarily around the Great Lakes (where there are now coordinated efforts to reduce its numbers). Adults, with their graceful S-curved necks, erected wing feathers, and black-knobbed orange bills, are unmistakable on the water.

- **SONG** Variety of hisses, barks, and snorts. Generally silent although not really “mute.”
- **BEHAVIOR** Decorative and graceful on water but awkward on land. Feeds by thrusting its long neck down to collect aquatic plants from bottom or tips up. Aggressive in defense of territory, it attempts to drive away any large bird or animal (humans and dogs included). Prefers freshwater, salt marshes, and protected bays.
- **BREEDING** Monogamous. Forms long-term pair bonds. Pair defends large territory. Rarely nests in colonies.
- **NESTING** Incubation 35–38 days by both sexes, but female does more. Precocial young tended by both sexes but feed themselves. First flight at 100–155 days.
- **POPULATION** Introduced, naturalized, and locally common.



Similar Birds	
	TUNDRA SWAN Winters in range of introduction • black bill without knob; naked yellow lores (not all birds); holds neck straight upright and bill parallel to water; does not elevate secondaries when swimming.



Flight Pattern	
Direct flight with strong steady wing beats.	

Nest Identification	
Shape	Location
Plant material in mound • lined with down • on shoreline, small island, or mound built up in shallows • built by both sexes • 4–8 light gray or bluish green eggs; subelliptical, 4.5 inches long.	

Increasing by expansion from contiguous areas of release.

- **CONSERVATION** Exotic species; native of Eurasia. Efforts to systematically remove or reduce populations in some areas because of fear of competition with native species.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 26.0 pounds
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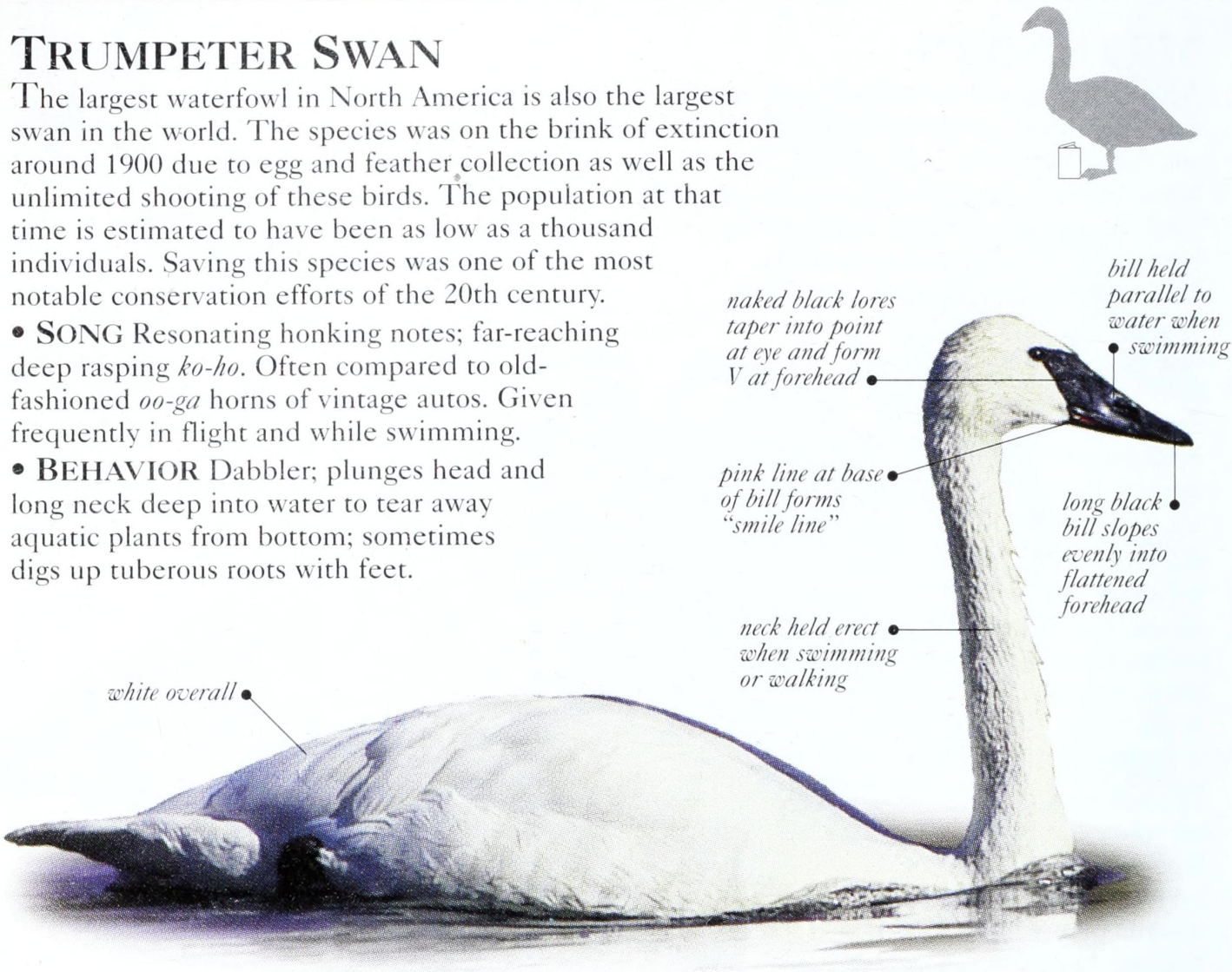
DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Cygnus buccinator</i>	Length 58–72 inches	Wingspan 6–8.5 feet
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TRUMPETER SWAN

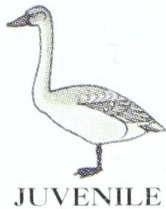
The largest waterfowl in North America is also the largest swan in the world. The species was on the brink of extinction around 1900 due to egg and feather collection as well as the unlimited shooting of these birds. The population at that time is estimated to have been as low as a thousand individuals. Saving this species was one of the most notable conservation efforts of the 20th century.

- **SONG** Resonating honking notes; far-reaching deep rasping *ko-ho*. Often compared to old-fashioned *oo-ga* horns of vintage autos. Given frequently in flight and while swimming.
- **BEHAVIOR** Dabbler; plunges head and long neck deep into water to tear away aquatic plants from bottom; sometimes digs up tuberous roots with feet.



Defends large territory. Favors freshwater lakes, ponds, and rivers; sometimes retreats to coastal bays in winter.

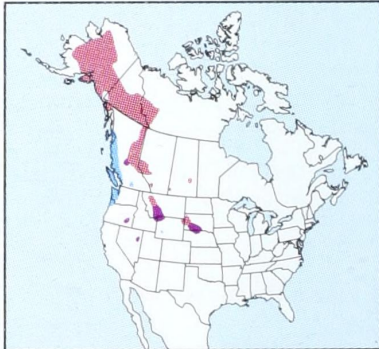
- **BREEDING** Monogamous. Forms long-term pair bonds. Solitary nester.
- **NESTING** Incubation 32–37 days, mostly by female. Precocial young tended by both sexes. First flight at 91–110 days. 1 brood per year.
- **POPULATION** Fairly common in breeding range. Numbers are low, perhaps 6,000 birds, but stable or increasing.



Similar Birds



TUNDRA SWAN
Smaller; black lore tapers to point in front of eye and goes straight across forehead; yellow spot often present in front of eye; rounded head without flat slope of bill to forehead.



Flight Pattern		
		
Strong direct flight with steady wing beats. Flights in either straight line or V formation.		

Nest Identification	
Shape 	Location 

- **CONSERVATION** Some small local flocks stable, threatened, or extirpated because of changes in land use. Reintroduction into some former ranges still underway.

Low mound of plant material on floating platform • on top of muskrat and beaver lodges • made of bulrushes, reed grasses, and sedges • surrounded by water • built by both sexes • 2–13 cream, white, or nest-stained eggs; subelliptical to long elliptical, 4.4 inches long.

Plumage Sexes similar	Habitat 	Migration Migratory	Weight 25.1 pounds
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DATE _____ TIME _____ LOCATION _____

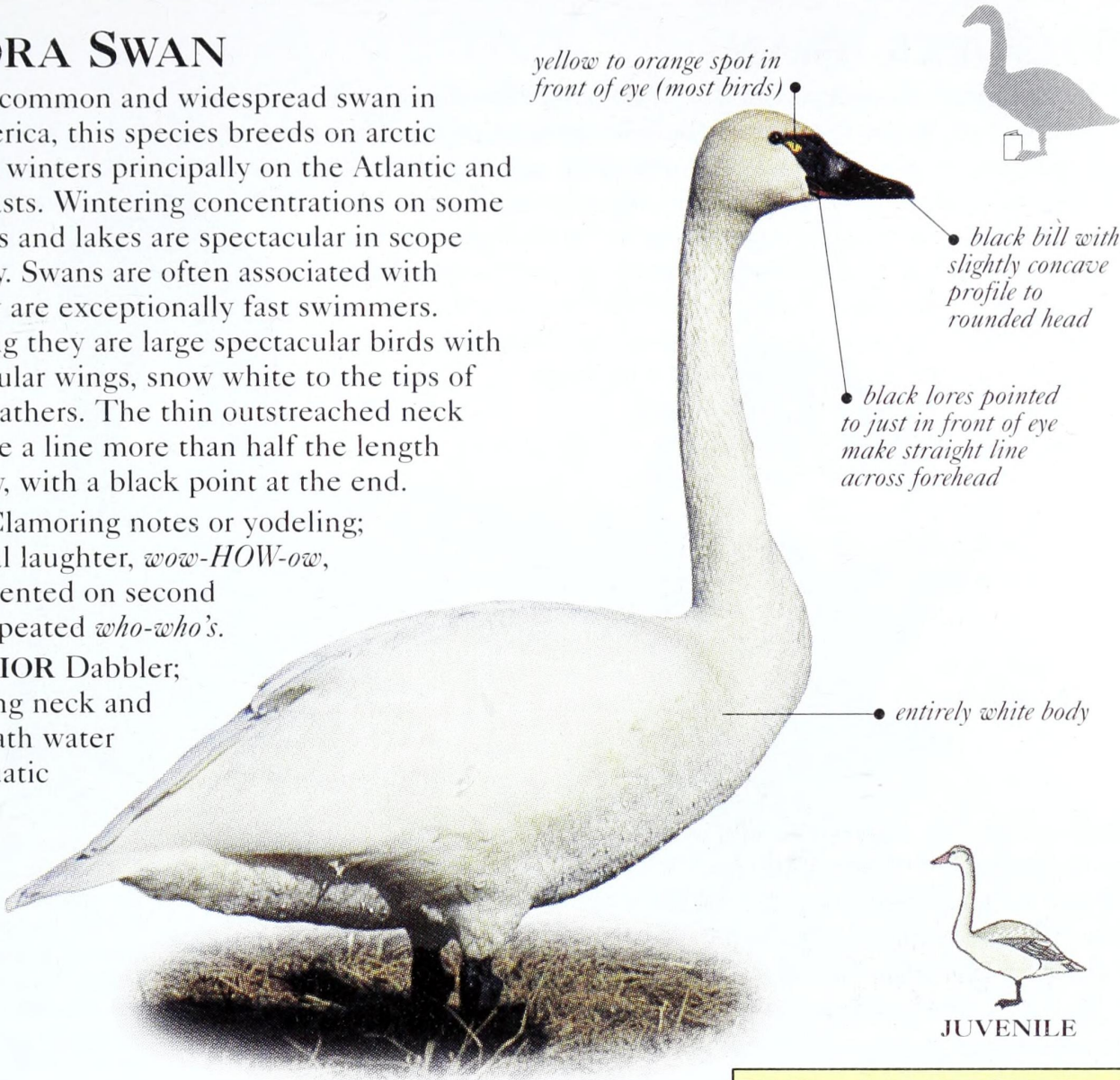
Family ANATIDAE	Species <i>Cygnus columbianus</i>	Length 47–58 inches	Wingspan 6–7 feet
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TUNDRA SWAN

The most common and widespread swan in North America, this species breeds on arctic tundra and winters principally on the Atlantic and Pacific Coasts. Wintering concentrations on some coastal bays and lakes are spectacular in scope and activity. Swans are often associated with water; they are exceptionally fast swimmers. When flying they are large spectacular birds with long triangular wings, snow white to the tips of all flight feathers. The thin outstretched neck appears like a line more than half the length of the body, with a black point at the end.

• **SONG** Clamoring notes or yodeling; soft musical laughter, *wow-HOW-ow*, heavily accented on second syllable; repeated *who-who*'s.

• **BEHAVIOR** Dabbler; plunges long neck and head beneath water to pick aquatic



vegetation and dig up roots of submerged plants. Like other swans, runs across water beating its wings to achieve takeoff. Once in flight flies with neck and head thrust straight forward and feet protruding beneath tail.

• **BREEDING** The Tundra Swan is monogamous. It finds a mate and pairs for life. It is also known to be a solitary nester that is widespread over the tundra.

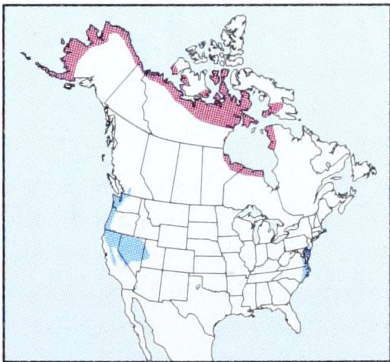
• **NESTING** Incubation 31–40 days, mostly by female.

Precocial young tended by both sexes. First flight at 60–70 days. 1 brood per year.

• **POPULATION** Common on breeding range. Common to rare on wintering range. Increasing.

Similar Birds

TRUMPETER SWAN ♀ ♂
Larger; bill slopes into flat forehead; no yellow spot in front of eye; black lores taper to point touching eye and form V across forehead; pink “smile line.”



Flight Pattern		
Strong direct flight with steady wing beats. Flies in straight line or V formation.		

Nest Identification	
Shape	Location

Low mound of plant material such as mosses, dried grasses, and sedges • near lake or other open water on ridge or island • built by both sexes, but male does more • 4–5 creamy white or nest-stained eggs; elliptically ovate, 4.2 inches long.

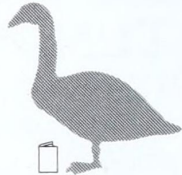
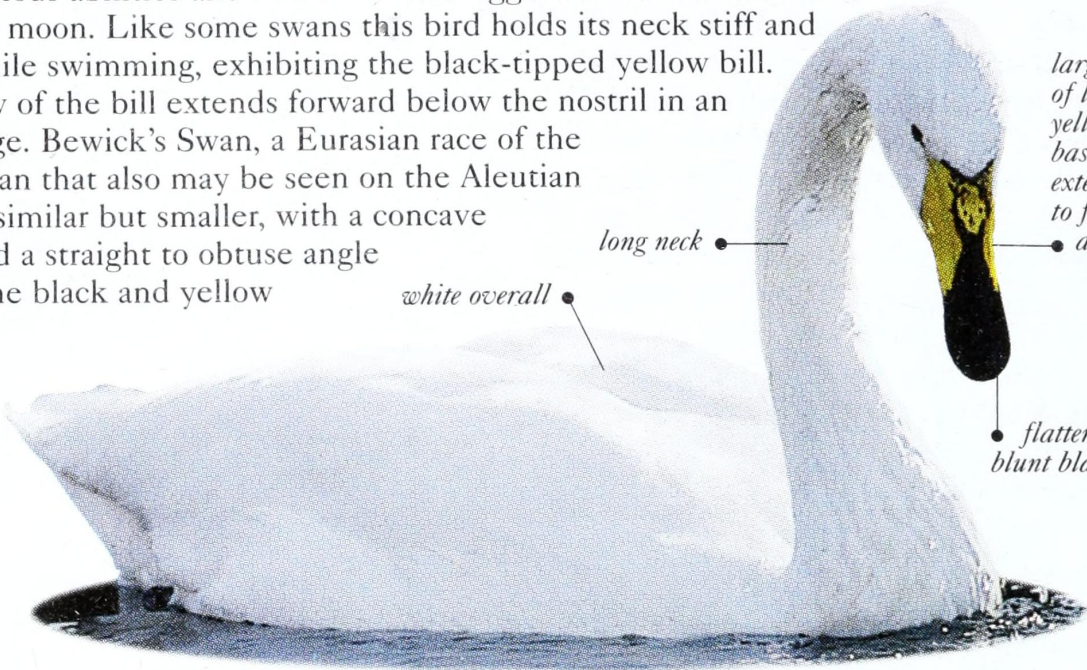
Plumage Sexes similar	Habitat	Migration Migratory	Weight 15.7 pounds
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DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Cygnus cygnus</i>	Length 60 inches	Wingspan 7–8 feet
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WHOOPER SWAN

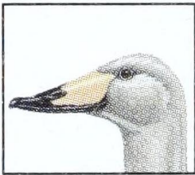
This Eurasian counterpart of the Trumpeter Swan is known for its loud buglelike call. In ancient times the Icelanders thought Whooper Swans had miraculous abilities and that once their eggs hatched the adult birds flew to the moon. Like some swans this bird holds its neck stiff and straight while swimming, exhibiting the black-tipped yellow bill. The yellow of the bill extends forward below the nostril in an acute wedge. Bewick's Swan, a Eurasian race of the Tundra Swan that also may be seen on the Aleutian Islands, is similar but smaller, with a concave culmen and a straight to obtuse angle between the black and yellow



large swatch of lemon-yellow at base of bill extends out to form acute angle

parts of the bill. Immature Whooper Swans are a dusky gray color. They have black-tipped bills with a pink patch on the base of the bill that appears in the same shape as the yellow patch on the bill of the adult bird.

- **SONG** Loud beautiful buglelike call, *gang-go-gang-go* or *hoo-hoo-hoo*. Noisiest of all the swans.
- **BEHAVIOR** Eats invertebrates and water plants. Feeds by dipping head and neck in water. Does not dive. Wings whistle in flight. Takes off from water after running on surface while flapping wings.
- **BREEDING** Monogamous; may pair for life. Solitary.
- **NESTING** Incubation 35 days by female. Precocial young leave nest shortly after hatching. Tended by both sexes. First flight at 78–96 days. 1 brood per year.
- **POPULATION** Accidental to casual in North America in the



JUVENILE

Similar Birds

-  **TRUMPETER SWAN**
Sloping forehead; solid black bill and bare skin coming to a point at eye
• immature has pinkish brown bill; gray-brown overall • voice differs; gives a deep honking.
-  **TUNDRA SWAN**
Smaller; bill entirely black and dorsal surface (culmen) slightly concave; black facial skin tapers to point in front of eye and cuts straight across forehead; yellow spot in front of eye.

Flight Pattern



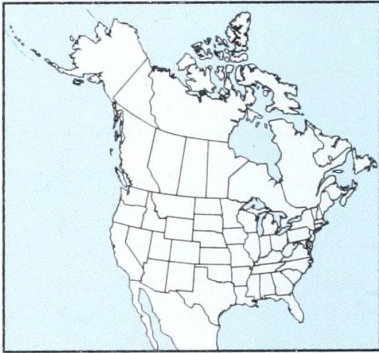
Unhurried rapid direct flight with deep strong wing beats. Flies in V formation.

Nest Identification

Shape		Location	
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Aleutians; has nested on Attu. Records on US Pacific Coast south to California may be either wild birds or escapees from captivity.

- **CONSERVATION**
Hunting the Whooper Swan is prohibited by law.



Heap of moss, reeds, or grass • on shallow water or hidden island • 4–6 large yellowish white eggs; subelliptical, 4.4 inches long.

Plumage Sexes similar	Habitat 	Migration Migratory	Weight 20.6 pounds
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DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Cairina moschata</i>	Length 25–35 inches	Wingspan 54–60 inches
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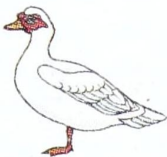
MUSCOVY DUCK

Widely domesticated and gooselike, Muscovy Ducks appear heavy and laboring when flying, with the body low and head held high. White upper and lower wing coverts are conspicuous in flight. Males are much larger than females and have bare facial skin, a black to reddish knob at the base of the bill, a crested head, and black legs and feet. Females are smaller and duller in color.



Domesticated birds vary in their mix of dark and light plumage and often have larger red wart patches on the face.

- **SONG** Usually silent. Male hisses; female may give rare guttural croak or quack.
- **BEHAVIOR** Inhabits forested watercourses where it roosts in trees at night and nests in natural cavities. Feeds primarily on vegetable matter, particularly seeds, which it forages for in pools, rivers, bottomland, hardwoods, and grain fields. Generally solitary or in pairs; infrequently in small groups.
- **BREEDING** Polygamous. Males do not form pair bonds with females and aggressively drive other males away.
- **NESTING** Breeding biology poorly known; incubation estimated at 35 days.



DOMESTIC WHITE FORM

Flight Pattern

Strong direct gooselike flight.

Nest Identification

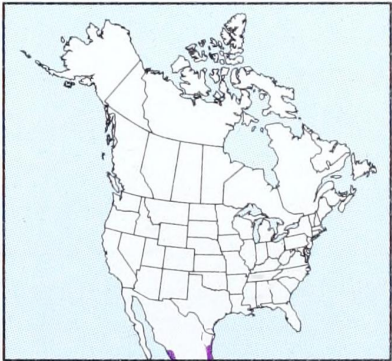
Shape

Location

- **POPULATION** Uncommon and local. Wild birds restricted to the lower Rio Grande Valley.
- **CONSERVATION** Nest box program has been successful in northern Mexico.

Similar Birds

NEOTROPIC CORMORANT
More slender body; longer, thinner neck and tail; lacks white patches on wing.



Nest boxes lined with little or no down • in cavities in trees, 9–60 feet above the ground • 8–10 white eggs with greenish sheen.

Plumage Sexes differ	Habitat	Migration Nonmigratory	Weight 6.4 pounds
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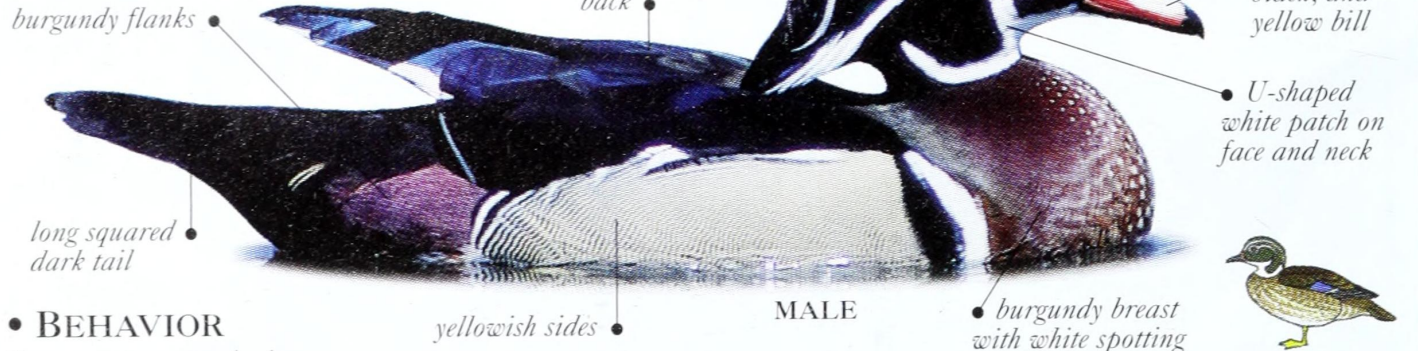
DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Aix sponsa</i>	Length 17–20 inches	Wingspan 28–30 inches
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WOOD DUCK

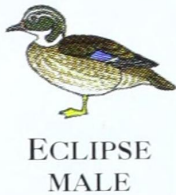
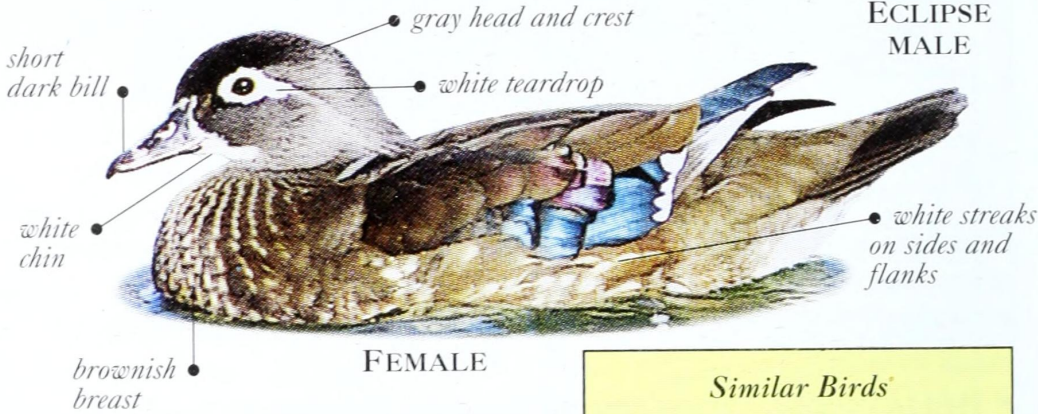
Considered by many to be the most beautiful duck in North America, the colorful male of this species is unmistakable with its large iridescent crest and multicolored bill. In flight it appears big-headed with a short neck and a long squared tail. The bill angles downward.

• **SONG** Male makes soft up-slurred whistle. Female makes rising *hoo-eeek* and sharp *rrrreek, rrrreek*.



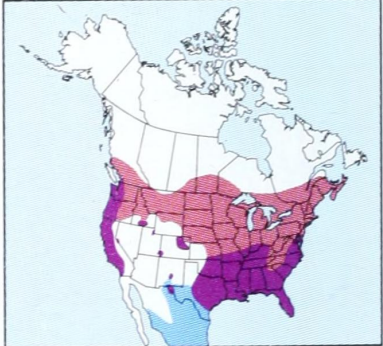
• **BEHAVIOR** Frequents wooded watercourses, ponds, and swamps. Dabbler that feeds primarily on vegetable material and insects but also eats snails, tadpoles, and salamanders. Walks easily on land and often forages there. Sometimes several females “dump” eggs in single nest box, which may hold 20–40 eggs. Often perches in trees.

- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 25–37 days by female. First flight in 56–70 days. Tended by female. 1 brood per year in North; sometimes 2 in South.
- **POPULATION** Possible increase due to reduced hunting pressures and placement of nest boxes in habitat.



Similar Birds

Male unmistakable.
BLUE-WINGED TEAL ♀
GREEN-WINGED TEAL ♀
Females smaller; dark bill; lack crest; lack white tear-drop eye patch.



Flight Pattern

Swift direct flight with rapid wing beats.

Nest Identification

Shape

Location

Lined with down • rarely nests in hollow fallen logs or barn lofts • built by female • 9–15 creamy white, dull white, or pale buff eggs; elliptical to subelliptical, 2 inches long.

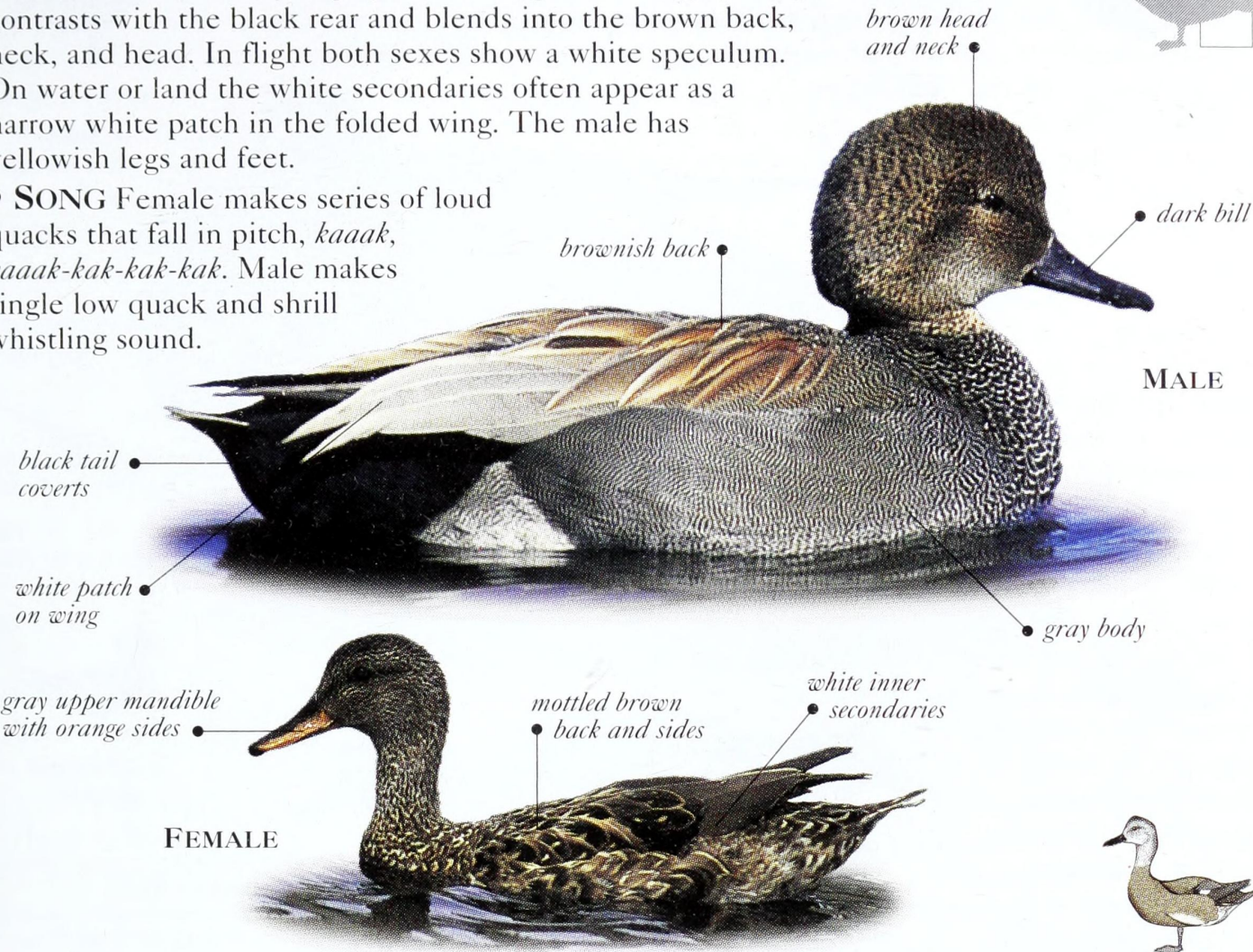
Plumage Sexes differ	Habitat	Migration Migratory	Weight 1.5 pounds
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Family ANATIDAE	Species <i>Anas strepera</i>	Length 18–23 inches	Wingspan 31–36 inches
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GADWALL

The male Gadwall is the grayest dabbling duck. Its gray body contrasts with the black rear and blends into the brown back, neck, and head. In flight both sexes show a white speculum. On water or land the white secondaries often appear as a narrow white patch in the folded wing. The male has yellowish legs and feet.

• **SONG** Female makes series of loud quacks that fall in pitch, *kaaak*, *kaaak-kak-kak-kak*. Male makes single low quack and shrill whistling sound.



MALE

FEMALE

ECLIPSE MALE

• **BEHAVIOR** Dabbler. Feeds in shallows primarily on plant material. Often forages in grain fields and into wood lots for acorns. Walks well on land compared to most ducks. Flies in small flocks. Usually shy and wary; sociable and gregarious. Often feeds by dabbling with head underwater instead of tipping up like many other puddle ducks.

• **BREEDING** Monogamous. Solitary nester.

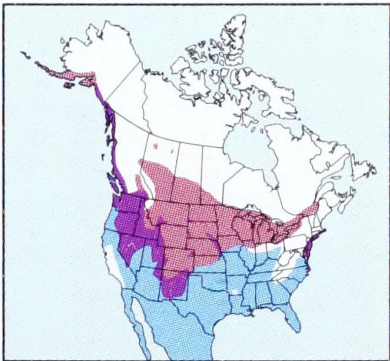
• **NESTING** Incubation 24–27 days by female. Young precocial; first flight at about 48–56 days. Tended by female. 1 brood per year.

• **POPULATION** Uncommon. Increasing due to expansion of nesting habitat because of unusually wet conditions in breeding range in late 1990s.

Similar Birds



MALLARD ♀
Blue speculum bordered with white; orange legs and feet.



Flight Pattern



Fast direct flight with rapid wing beats.

Nest Identification

Shape  Location 

Grasses and weeds • lined with down • near water or dry land, surrounded by dense weeds or grass • built by female • 7–15 white to dull cream eggs.

Plumage Sexes differ	Habitat  	Migration Migratory	Weight 2.2 pounds
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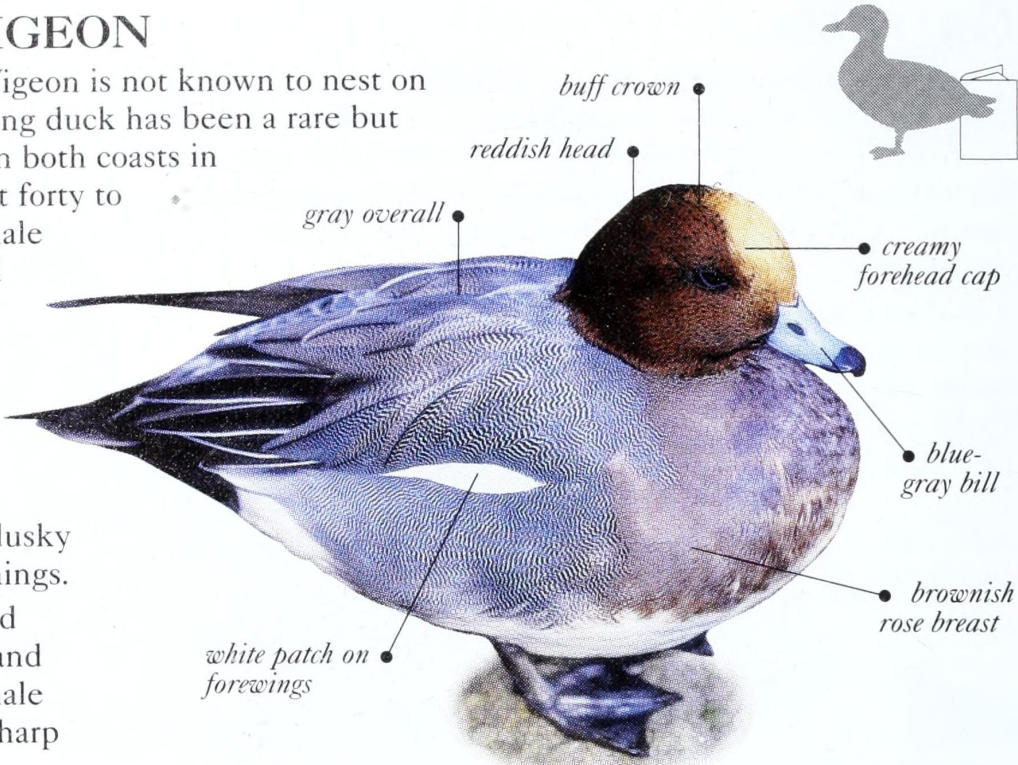
DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Anas penelope</i>	Length 18–20 inches	Wingspan 30–32 inches
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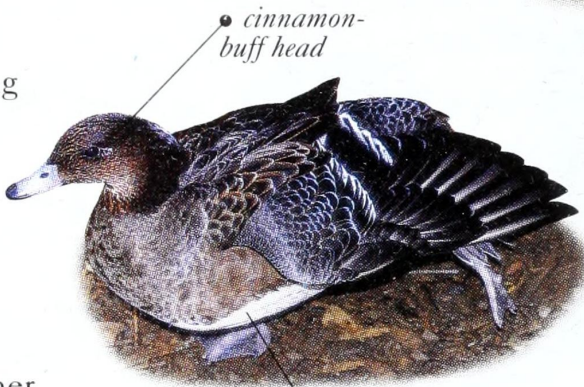
EURASIAN WIGEON

Although the Eurasian Wigeon is not known to nest on this continent, this dabbling duck has been a rare but regular visitor in winter on both coasts in North America for the last forty to fifty years. The adult female has a cinnamon-buff head in contrast to the male's reddish head. The female also has two morphs: rufous and gray. In flight it is best distinguished from the American Wigeon by its dusky axillars and underwing linings.

- **SONG** Male makes wild musical whistle, *whee-oo*, and short cheeping note. Female makes hoarse croak and sharp quack when alarmed.
- **BEHAVIOR** Highly gregarious after breeding season, often forming large flocks on the Eurasian wintering grounds. Dabbles in mud or tips up in shallow water to eat favorite foods: pond weeds, eelgrass, and other aquatic plants. Eats seeds but prefers leaves, stems, and buds. Also eats snails, beetles, and crickets. Walks well on land and often forages in fields and wooded lots some distance from water.
- **BREEDING** Monogamous. Semicolonial.
- **NESTING** Incubation 24–25 days by female. Precocial young leave nest shortly after hatching and find own food but still tended by female. First flight at 60–70 days.



MALE



FEMALE



ECLIPSE MALE

Similar Birds

AMERICAN WIGEON
Larger • male has gray head with wide green postocular patch; bright white crown; wine sides; white underwing linings show in flight

• female generally grayer with white underwing linings.

Flight Pattern

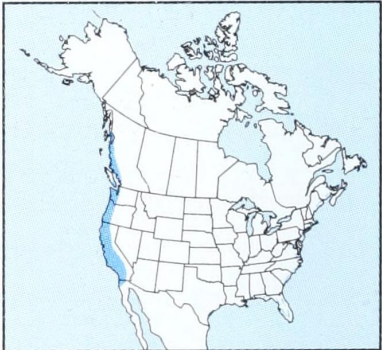
Swift direct flight with rapid wing beats.

Nest Identification

Shape

Location

Lined with grass and large amount of down • built in depression on ground, well hidden in tall grass • 7–9 whitish to pale buff or cream-white eggs • eggs identical to those of American Wigeon.



Plumage Sexes differ	Habitat	Migration Migratory	Weight 1.8 pounds
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DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Anas americana</i>	Length 18–23 inches	Wingspan 30–35 inches
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AMERICAN WIGEON

This species is identified in flight by the bold white patches on its forewings, which are gray on females, and the white underwing linings. The male has a conspicuous white forehead and crown, leading hunters to nickname it “baldpate.” Both males and females are more rusty brown on their breast and sides than other dabbling ducks. Legs and feet are gray. In flight females show a white belly and undertail coverts and a green speculum.

- **SONG** Throaty whistle, *whew, whew, whew*. Female makes weak guttural quack.

black tail and undertail coverts

MALE

white of underparts extends onto flanks

gray head with wide green postocular stripe

white forehead and crown

black-tipped blue-gray bill

reddish brown breast and sides

ECLIPSE MALE

- **BEHAVIOR** Dabbler. Flies in tight flocks that may twist and turn like those of teals. Eats plant material. Will graze on shore and in fields. Often feeds in shallow water with other duck species. Wary; takes flight quickly when it is disturbed.

gray bill with black tip

gray head and neck

brown back with rusty shoulders

rufous-brown breast, sides, and flanks

FEMALE

- **BREEDING** Monogamous. Solitary. Nests on dry land, sometimes far from water; often on small islands.
- **NESTING** Incubation 22–25 days by female. Precocial young stay in nest 45–63 days. Fed by female. 1 brood per year.
- **POPULATION** Common and apparently stable. Breeding range expanding eastward in Canada and northeastern US. Increase has been due to wet conditions as well as increase in nesting sites.

- **CONSERVATION** No issues at present; carefully monitored and managed.

Similar Birds



EURASIAN WIGEON
Rufous-brown head; creamy buff forehead and crown; gray sides and back • female shows dusky underwing linings in flight; gray-morph has brownish gray head, throat, and breast; rufous morph has rufous head, neck, throat, and breast.



Flight Pattern

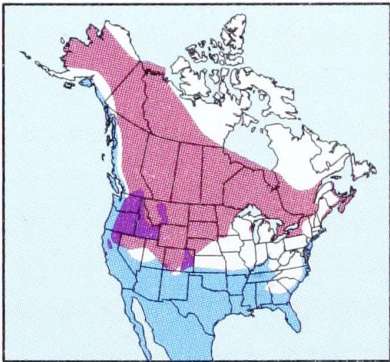


Swift direct flight with strong wing beats.

Nest Identification

Shape  Location 

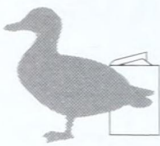
Grasses and weeds lined with down • on dry land, sometimes on island • built by female • 6–12 white to creamy white eggs; elliptical, 2.1 inches in diameter.



Plumage Sexes differ	Habitat 	Migration Migratory	Weight 1.7 pounds
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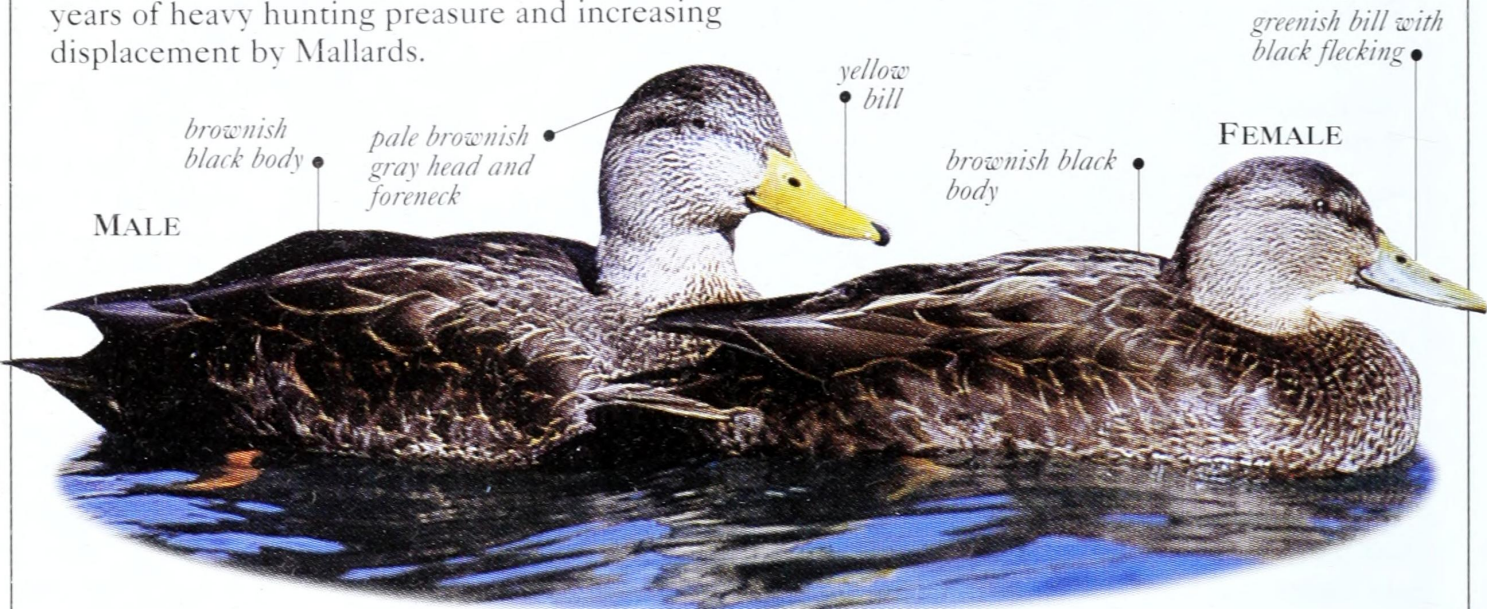
DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Anas rubripes</i>	Length 19–24 inches	Wingspan 33–36 inches
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AMERICAN BLACK DUCK

The darkest dabbling duck on the water looks almost black at a distance, with a paler head and foreneck. In flight the white wing linings contrast boldly with the dark body and wings. The purplish blue speculum is bordered with black, and the posterior border often has a narrow white edge. It is as large as a Mallard. Into the 1940s this was the most abundant duck in eastern and central North America and was the most heavily hunted without noticeable decline in numbers. Today it seems to be losing steadily to years of heavy hunting pressure and increasing displacement by Mallards.



- **SONG** Typical female gives loud duck quack; male makes lower croak.
- **BEHAVIOR** Dabbler. Very alert and wary; one of the quickest ducks into the air when disturbed, thrusting upward energetically off water or land. Feeds in shallow water, taking mostly plant materials in winter and a variety of aquatic insects in summer.
- **BREEDING** Monogamous. Solitary nester. Sometimes hybridizes with Mallard.
- **NESTING** Incubation 23–33 days by female. Young stay in nest 58–63 days. Fed by female. 1 brood per year.
- **POPULATION** Fairly common.
- **CONSERVATION** Management warranted due to decline in numbers, which may be caused by changes to its habitat and deforestation. Both of these circumstances seem to favor Mallards, which tend to replace Black Ducks where the two species coexist.

Flight Pattern

Swift direct flight with strong wing beats.

Nest Identification

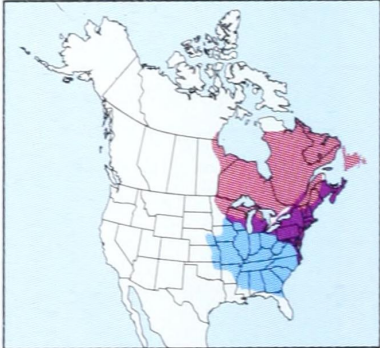
Shape

Location

Shallow depression with plant material added • lined with down • on ground among clumps of dense vegetation • sometimes in raised situation, as on top of stump • built by female • 6–12 creamy white to greenish buff eggs.

Similar Birds

MALLARD ♀
Female lacks contrast between head and body; paler brown; yellow-orange bill with blackish mottling; bright orange feet; metallic blue speculum bordered with a white front and back; white tail.



Plumage Sexes differ	Habitat	Migration Migratory	Weight 3.1 pounds
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DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Anas platyrhynchos</i>	Length 23 inches	Wingspan 30–40 inches
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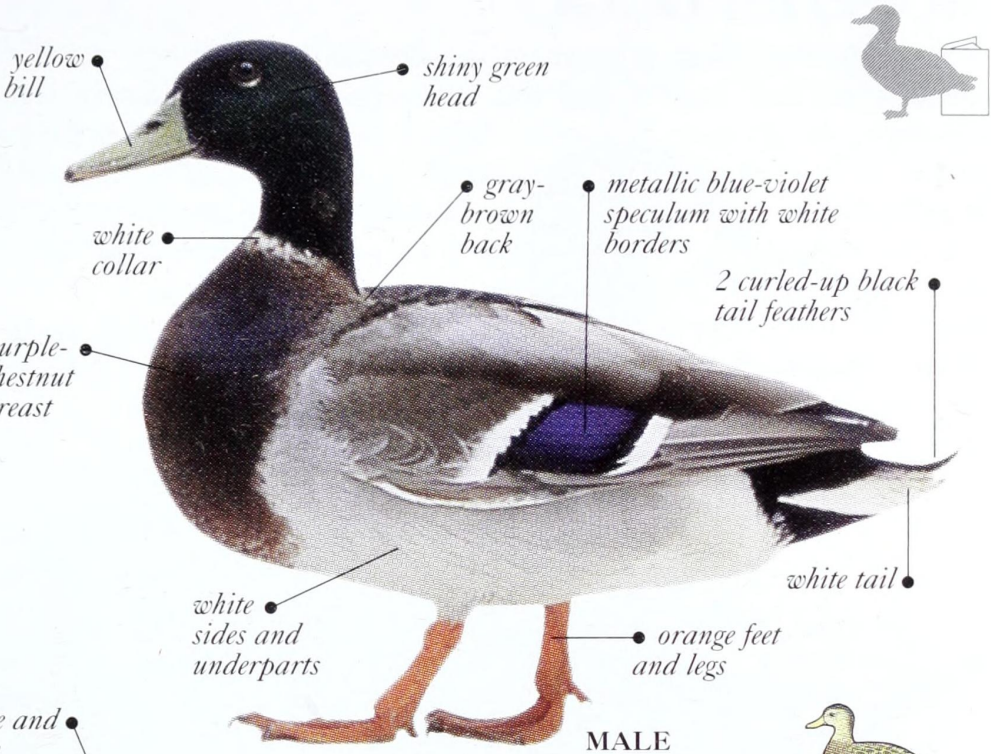
MALLARD

One of the best-known waterfowl in the world, the Mallard can be found almost anywhere shallow freshwater occurs. Some even reside in salt marshes and bays. The male is larger than the female. Many domesticated forms are entirely white with an orange bill, legs, and feet.

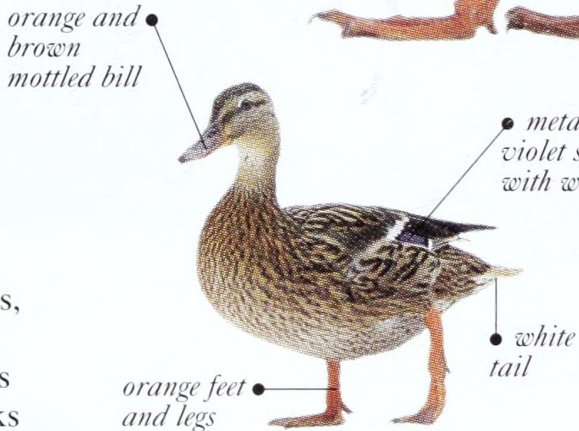
• **SONG** Female makes loud *quack-quack-quack*, *quack*, *quack-quack*, descending in scale. Male sounds double note and low reedy *kwek-kwek-kwek*.

• **BEHAVIOR** Generally found in shallow freshwater, where it dabbles primarily for plant food, also taking insects, mollusks, and crustaceans. Sometimes dives underwater. Walks well and often forages on shore in fields and woodlots. Leaps directly into flight from water. Frequently hybridizes.

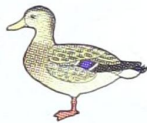
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 26–30 days by female. Young leave nest soon after hatching. 1 brood per year.
- **POPULATION** Common to abundant.
- **FEEDERS** Corn or grains. In city parks some are tame enough to be hand-fed by humans.



MALE



FEMALE

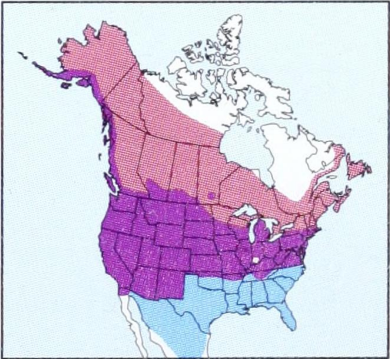


ECLIPSE MALE

Similar Birds	
Female resembles many other female ducks, but blue speculum bordered white is unique.	
	NORTHERN SHOVELER ♂ Long dark bill; white breast; chestnut sides.
	COMMON MERGANSER ♂ Narrow red bill; puffy or crested head.
	RED-BREASTED MERGANSER ♂ Narrow red bill; puffy or crested head.

Flight Pattern
Swift direct flight with strong wing beats.

• **CONSERVATION** One of the ducks harvested in greatest numbers by waterfowl hunters. Prone to lead poisoning from ingesting spent lead shot with food from bottom ooze.



Nest Identification	Shallow pool of plant material gathered at the site, lined with down • may be more than 1 mile from water, usually on ground among concealing vegetation • built by female • 5–14 greenish buff or grayish buff eggs, 2.3 inches long.
Shape	
Location	

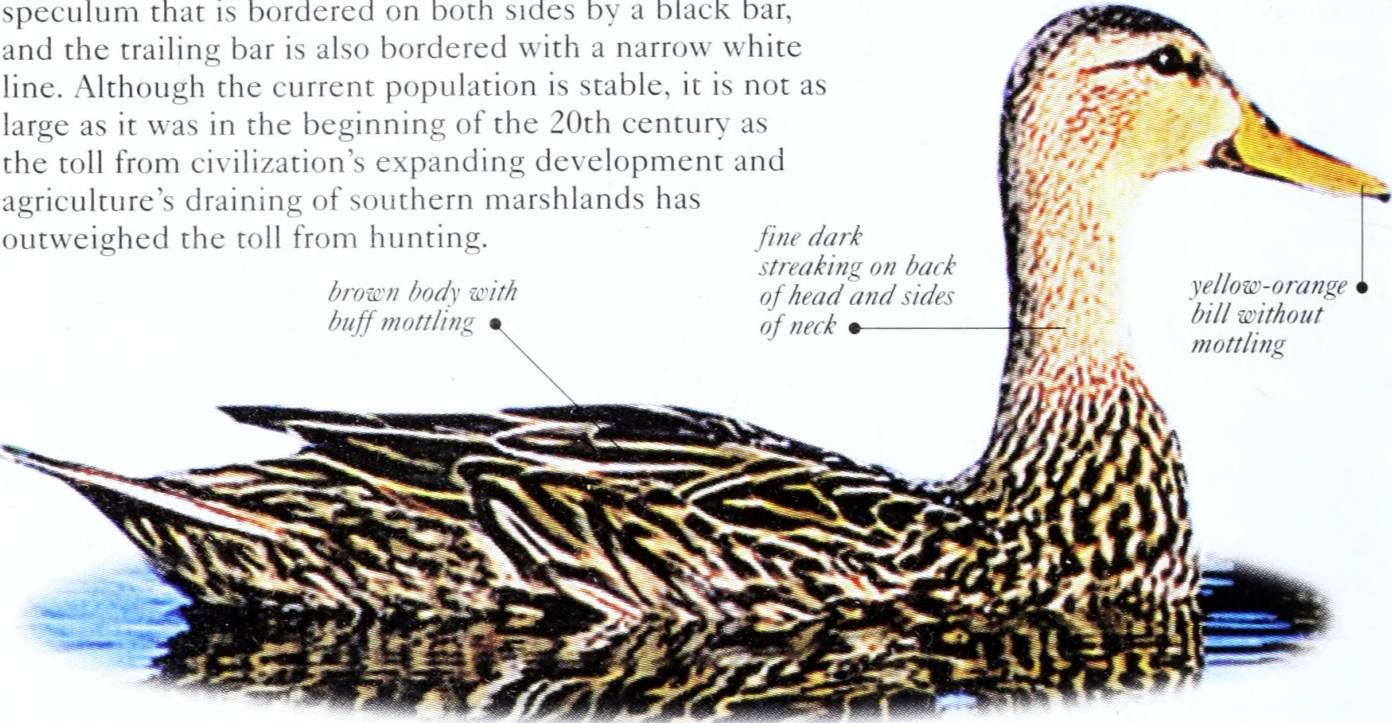
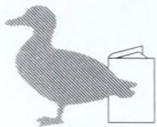
Plumage Sexes differ	Habitat	Migration Migratory	Weight 2.4 pounds
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DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Anas fulvigula</i>	Length 21 inches	Wingspan 30–33 inches
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MOTTLED DUCK

A large resident duck of southern marshes and coastal prairies, this bird is paler than the American Black Duck but also shows white wing linings in flight that contrast with its darker body. In flight it shows a metallic greenish purple speculum that is bordered on both sides by a black bar, and the trailing bar is also bordered with a narrow white line. Although the current population is stable, it is not as large as it was in the beginning of the 20th century as the toll from civilization’s expanding development and agriculture’s draining of southern marshlands has outweighed the toll from hunting.



brown body with buff mottling

fine dark streaking on back of head and sides of neck

yellow-orange bill without mottling

- **SONG** Male makes a low, raspy *kreeeb, kreeeb, kreeeb*. Female’s quack similar to that of a female Mallard.
- **BEHAVIOR** Usually in pairs or small groups. Pairs persist for most of the year except during the postbreeding season molt. A somewhat tame dabbling duck that eats more animal food than the closely related Mallard. Feeds primarily on mollusks, crustaceans, and insects, but also eats vegetable matter. Courtship and pair formation for this species take place on the wintering grounds while Mallards, American Black Ducks, and other duck species are still present.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 24–28 days by female. First flight at about 60–70 days. Fed by female. 1 brood per year.

Flight Pattern

Direct flight with strong rapid wing beats.

Nest Identification

Shape

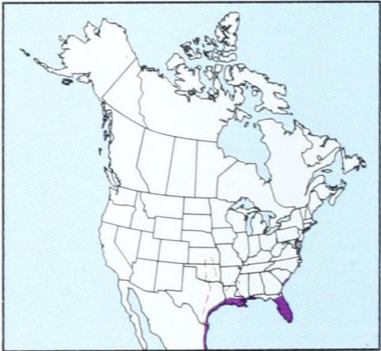
Location

- **POPULATION** Common. Stable. Introduced on South Carolina coast.
- **CONSERVATION** Heavily hunted in season.

Similar Birds

AMERICAN BLACK DUCK
Much darker blackish brown with streaked cheeks and throat.

MALLARD ♀
Female has orange and brown bill with dark mottling; white borders on both sides of blue-purple speculum.



Shallow bowl of grasses and reeds • lined with down and breast feathers • in dense growth in marsh, usually within 600 feet of water, supported in dense clumps of grass • may be several inches above ground • built by female • 8–12 creamy white to greenish white eggs; elliptical, 2.2 inches long.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 2.3 pounds
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Family ANATIDAE	Species <i>Anas discors</i>	Length 14–16 inches	Wingspan 23–31 inches
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BLUE-WINGED TEAL

One of the smallest ducks in North America travels great distances between breeding and wintering grounds, as much as 7,000 miles. Both sexes have a large pale blue patch on the forewings and a long metallic green speculum that is visible when wings are spread. Males in breeding colors have a gray-violet head bordered by a bold white facial crescent.

• **SONG** In flight, the male often makes a high sibilant *tseel*. The female makes *wak* quacking sound.

• **BEHAVIOR** Very fast taking off from the water, this bird flies quickly and rapidly, often twisting and turning in small compact flocks. Plants make up the bulk of its diet. Often forages in shallow waters. One of the earliest ducks to migrate southward to wintering areas. More than 90 percent of population winters south of US border. Tame, often allowing close approach.

• BREEDING

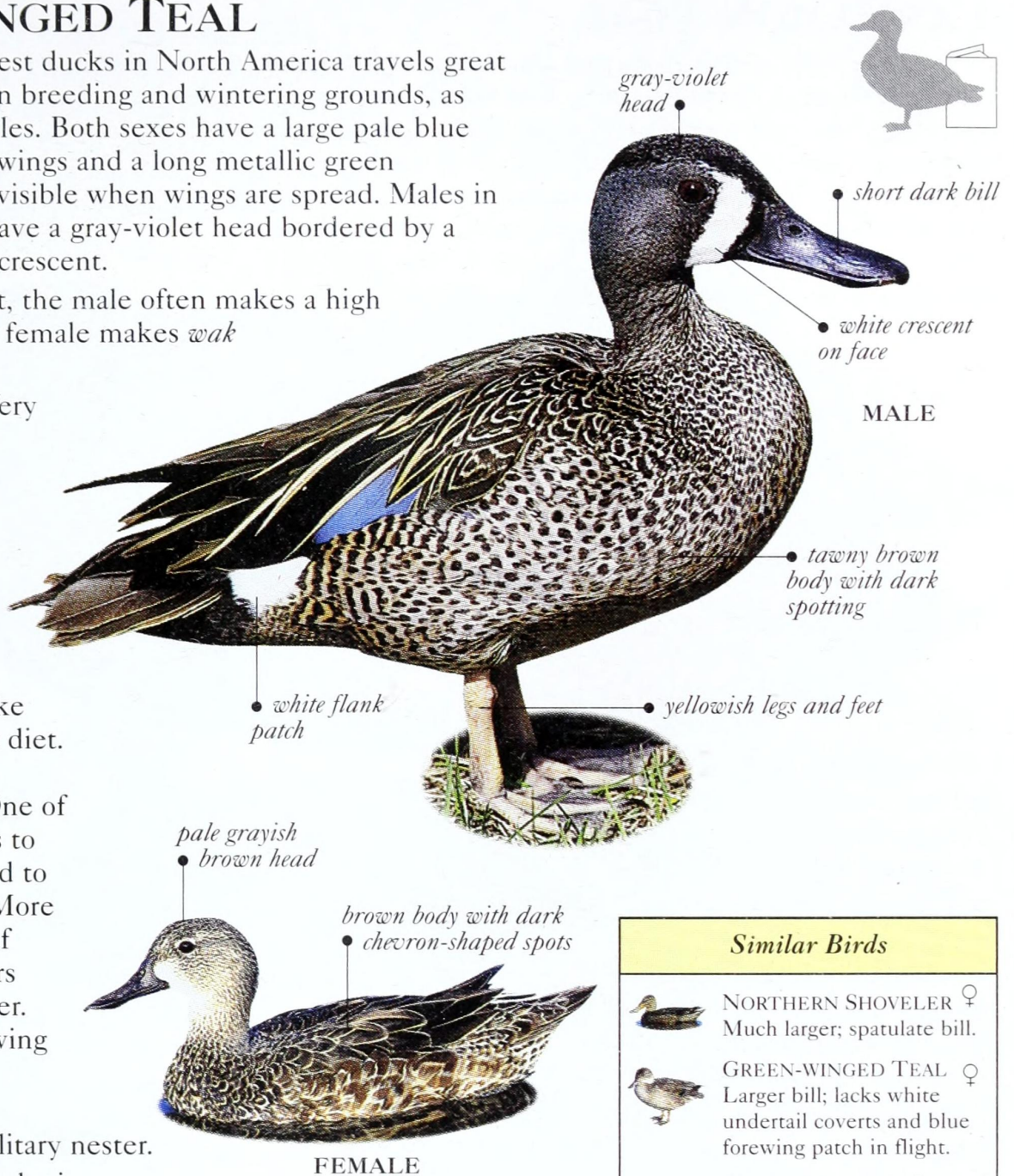
Monogamous. Solitary nester.

• NESTING

Incubation 22–27 days by female. First flight at 35–49 days. Tended by female. 1 brood per year.

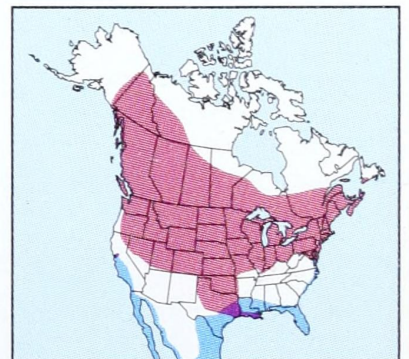
• **POPULATION** Fairly common in the East; uncommon in the West. Apparently stable.

• **CONSERVATION** Most Blue-Winged Teals winter south of US borders, so Latin American cooperation is needed to further conservation efforts.



Similar Birds

-  NORTHERN SHOVELER ♀
Much larger; spatulate bill.
-  GREEN-WINGED TEAL ♀
Larger bill; lacks white undertail coverts and blue forewing patch in flight.
-  CINNAMON TEAL ♀
Longer bill; richer brown; less distinct eye line.



Flight Pattern



Fast direct flight with steady wing beats.

Nest Identification

Shape  Location 

Shallow depression with some grass or weeds added • lined with down • on ground in prairie, hayfield, or coastal meadow • built by female • 6–15 white, olive-white, dull white, or tinged olive eggs; ovate to elliptical ovate, 1.8 inches in diameter.

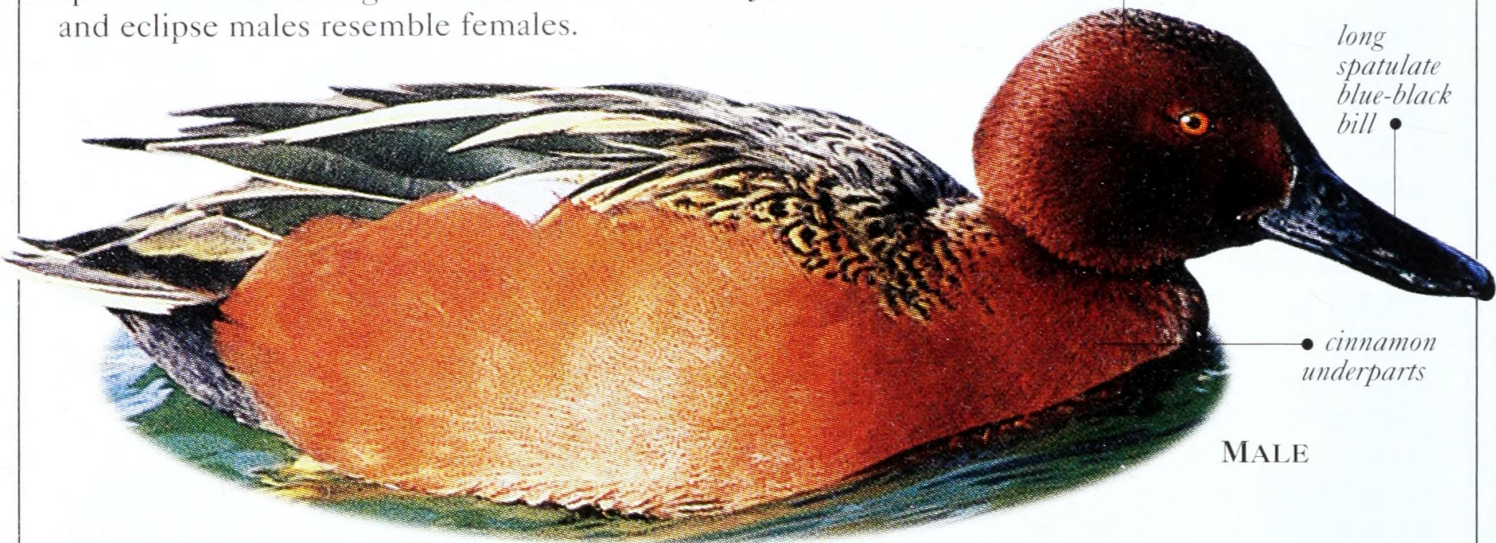
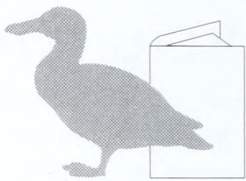
Plumage Sexes differ	Habitat 	Migration Migratory	Weight 14.4 ounces
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DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Anas cyanoptera</i>	Length 14–17 inches	Wingspan 24–30 inches
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CINNAMON TEAL

The male, with its rich cinnamon hues, is one of the most recognizable ducks in western North America. The female's warm earth tones blend well with the cattails and reeds that surround its home. The Cinnamon Teal and the Ruddy Duck are the only waterfowl to breed in both North and South America. In flight the upper forewing features a large pale powder-blue patch and the speculum is metallic green with a white border. Juveniles and eclipse males resemble females.



MALE

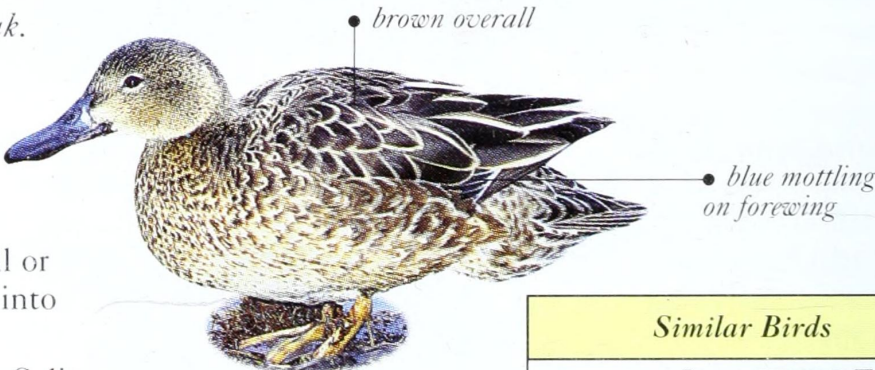
• **SONG** Male has low-pitched prattling *chuk-chuk-chuk*. Female has weak quack.

• **BEHAVIOR** Eats aquatic plant seeds and insects, rice, corn, algae, snails, and crustaceans. Unlike other dabblers, skims water with bill or reaches below surface. Leaps into flight directly from water.

• **BREEDING** Monogamous. Solitary.

• **NESTING** Incubation 21–25 days by female. First flight after 49 days. 1 brood per year.

• **POPULATION** Fairly common to common from the Pacific Coast to the eastern Great Plains and south into Texas and west-central Mexico. Casual to accidental in the East in winter and spring migration.

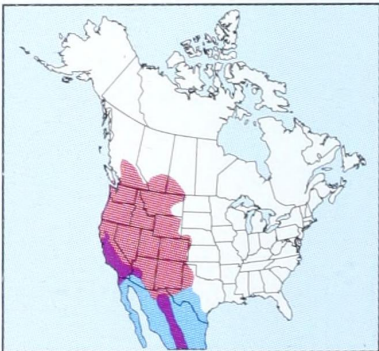


FEMALE

Similar Birds



BLUE-WINGED TEAL ♀
Females almost identical • shorter, less spatulate bill; more distinct lore spot and eye line.



Flight Pattern	
Swift direct flight with rapid wing beats.	

Nest Identification	
Shape	Location

• **CONSERVATION** Protected except for licensed seasonal hunting. Efforts made in last half of 20th century to increase nesting habitat. Declines due to loss of wetland habitat.

On ground hidden in tall vegetation • in dense marsh grasses and reeds or in slight depression on bare ground • often 100 feet or more away from water • built by female • 9–12 pinkish buff or white eggs; subelliptical, 2 inches long.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 14.4 ounces
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DATE _____ TIME _____ LOCATION _____

Family ANATIDAE

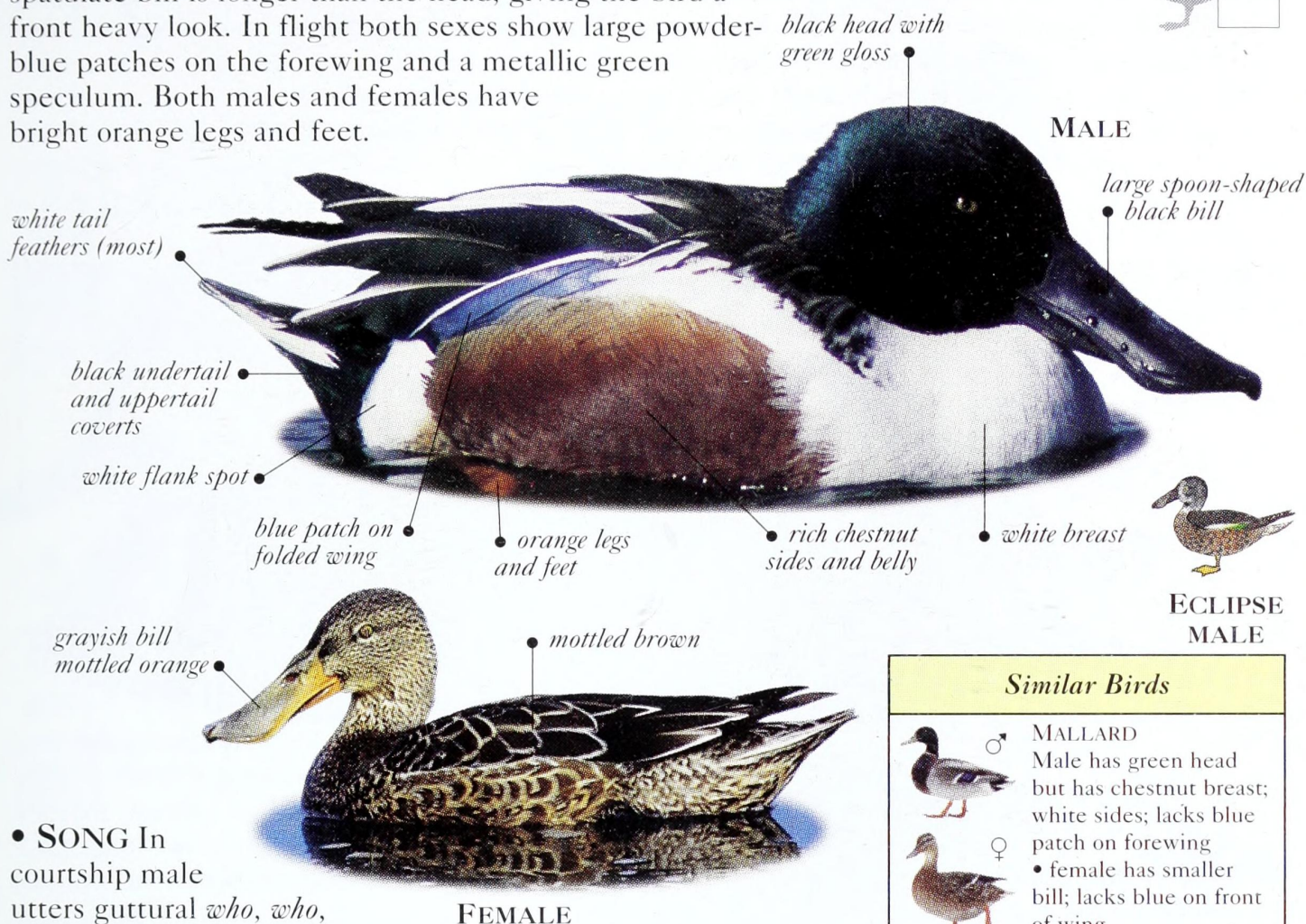
Species *Anas clypeata*

Length 17–20 inches

Wingspan 27–33 inches

NORTHERN SHOVELER

No duck in North America has a bigger bill. The large, spatulate bill is longer than the head, giving the bird a front heavy look. In flight both sexes show large powder-blue patches on the forewing and a metallic green speculum. Both males and females have bright orange legs and feet.



• **SONG** In courtship male utters guttural *who, who, who* or *took, took, took*. Female utters feeble quack and descending *WACK-wack-wack-wa-wa*.

• **BEHAVIOR** Frequently swims with head held low, bill partly submerged, straining water for small aquatic plants and animals through the comblike teeth along sides of bill. Animals make up approximately one-third of its diet. Swift flight into air by leaping off water. Rapid, sometimes darting, teal-like flight.

• **BREEDING** Monogamous. Solitary nester.

• **NESTING** Incubation 21–27 days by female. Precocial young leave nest within a few hours of hatching. First flight at 38–66 days. Tended by female. 1 brood per year.

Flight Pattern

Strong direct flight with rapid wing beats.

Nest Identification

Shape Location

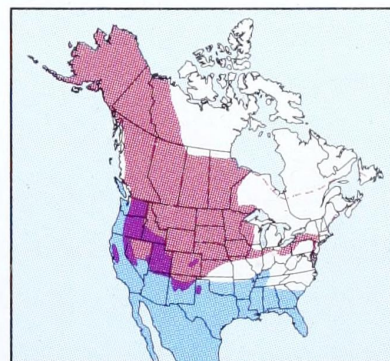
• **POPULATION** Common to abundant. Increasing due to wet conditions in breeding range.

Partly filled with dried grasses and weeds • lined with down • close to water, generally in area of short grass, or far from water on high dry ground of prairies • built by female • 6–19 olive-buff or greenish gray eggs; elliptical, 2 inches long.

Similar Birds

♂ **MALLARD**
Male has green head but has chestnut breast; white sides; lacks blue patch on forewing
♀ female has smaller bill; lacks blue on front of wing.

♂ **BLUE-WINGED TEAL**
Smaller; shows pale blue forewing patch in flight • male has brown body; gray head; white crescent on front of face; small black bill
♀ female is brown overall; small black bill.



Plumage	Sexes differ	Habitat		Migration	Migratory	Weight	1.4 pounds
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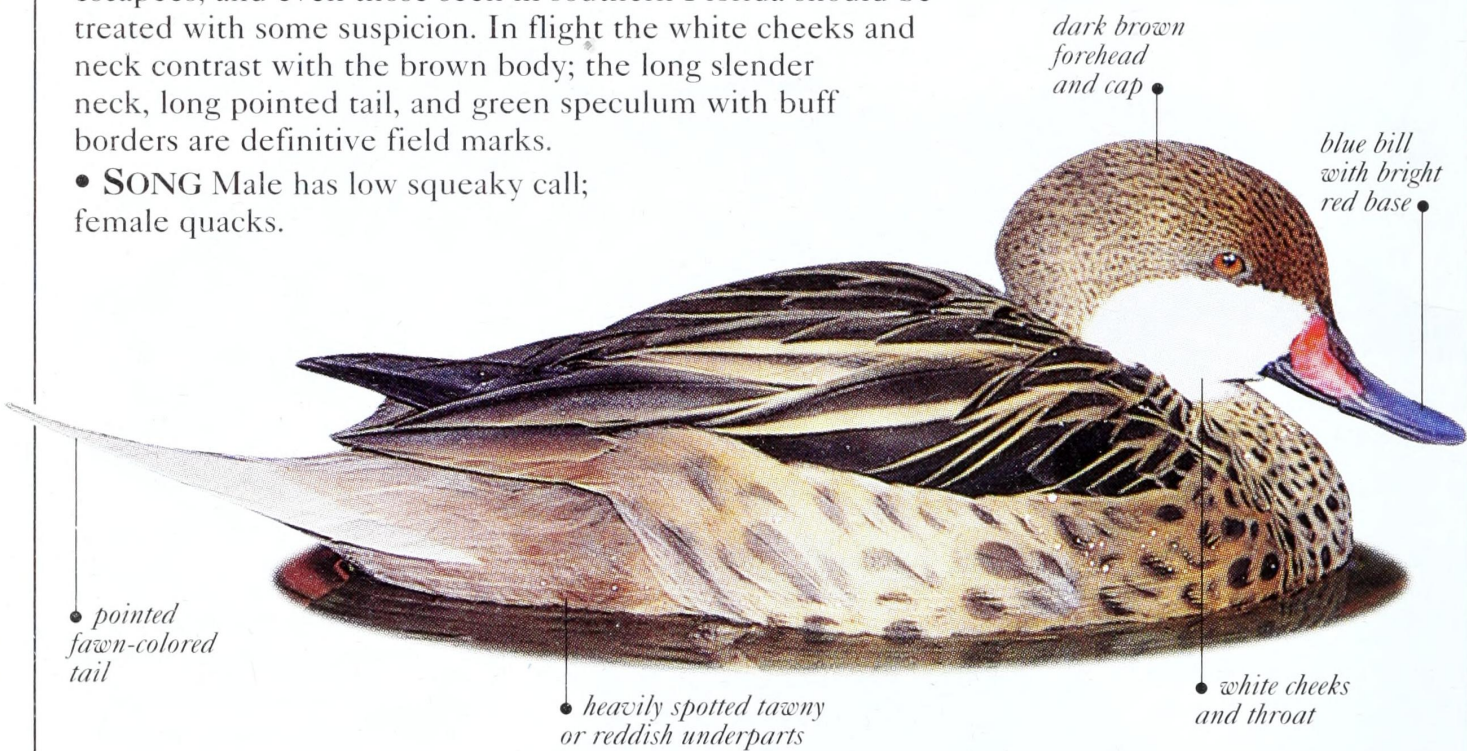
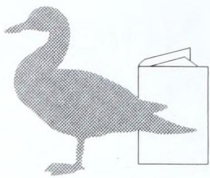
DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Anas bahamensis</i>	Length 18–20 inches	Wingspan 26–31 inches
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WHITE-CHEEKED PINTAIL

Sometimes called the Bahama Duck, this native of the West Indies and South America is a rare to casual winter visitor in southern Florida. This freshwater duck is often kept in captivity. Any individuals seen outside the Sunshine State are probably escapees, and even those seen in southern Florida should be treated with some suspicion. In flight the white cheeks and neck contrast with the brown body; the long slender neck, long pointed tail, and green speculum with buff borders are definitive field marks.

- **SONG** Male has low squeaky call; female quacks.



- **BEHAVIOR** Eats seeds and parts of water plants but also takes small invertebrates. On islands in the Caribbean often found alone or in pairs but sometimes in flocks of 40 or more birds on inland bays, brackish marshes, fresh- and saltwater ponds, and rain-flooded low-lying places.
- **BREEDING** Monogamous. Has produced hybrids with Northern Pintail, Wood Duck, Mallard, American Wigeon, and others in captive or otherwise similar conditions.
- **NESTING** Incubation 25 days by female. Young leave nest day of hatching. Tended by female. First flight at 35–50 days.
- **POPULATION** Casual in Florida. Ranges from common to fairly common to locally common and irruptive in West Indies and South America.

Flight Pattern

Swift direct flight with rapid strong wing beats.

Nest Identification

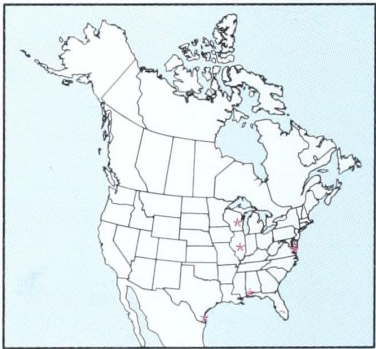
Shape Location

- **CONSERVATION** Formerly was hunted in the Caribbean for generations. Now protected there by laws called conservation ordinances.

Only a few leaves added • concealed in thick grasses or weeds or under mangrove roots • 5–12 buff or cream eggs, sometimes stained.

Similar Birds

NORTHERN PINTAIL ♀
Lacks red spot at base of bill; lacks white cheeks; lacks heavy spotting on underparts; dark speculum with white border on trailing edge.



Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 1.2 pounds
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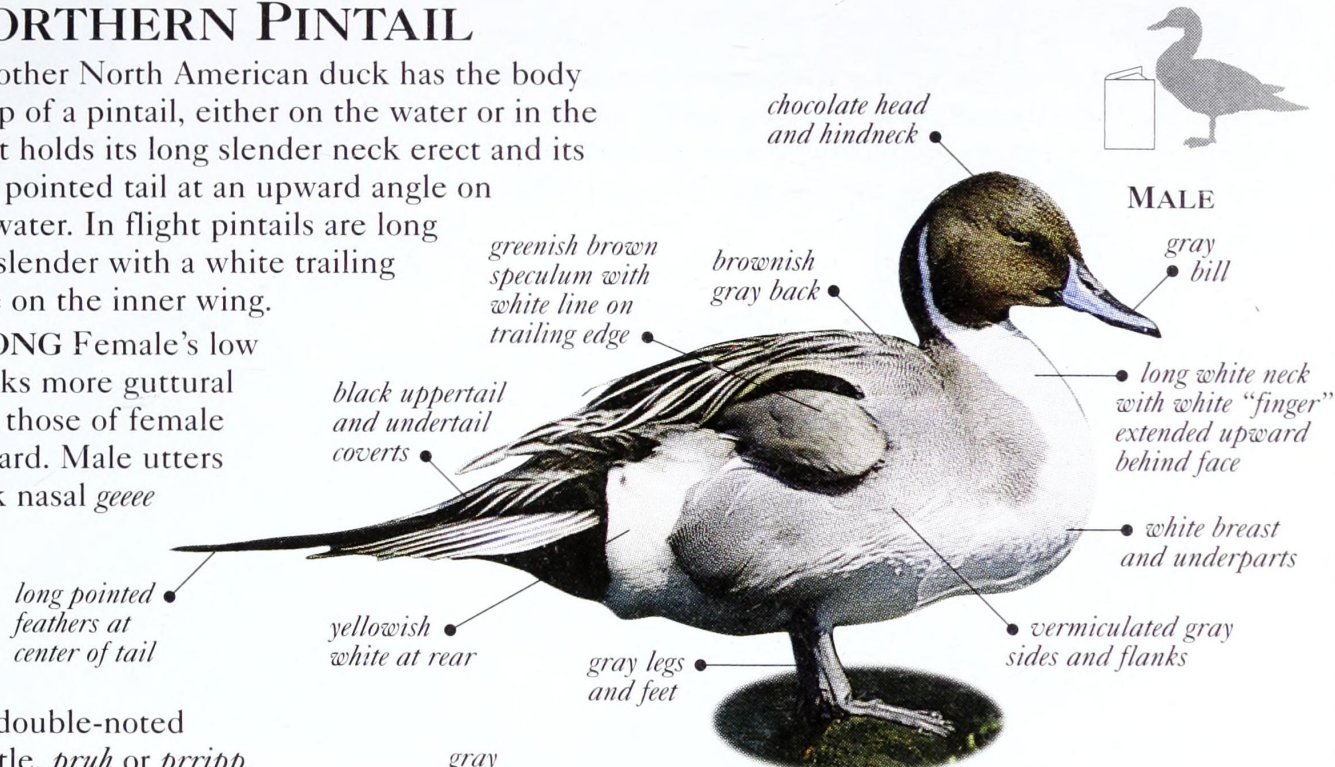
DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Anas acuta</i>	Length 21–29 inches	Wingspan 29–35 inches
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NORTHERN PINTAIL

No other North American duck has the body shaep of a pintail, either on the water or in the air. It holds its long slender neck erect and its long pointed tail at an upward angle on the water. In flight pintails are long and slender with a white trailing edge on the inner wing.

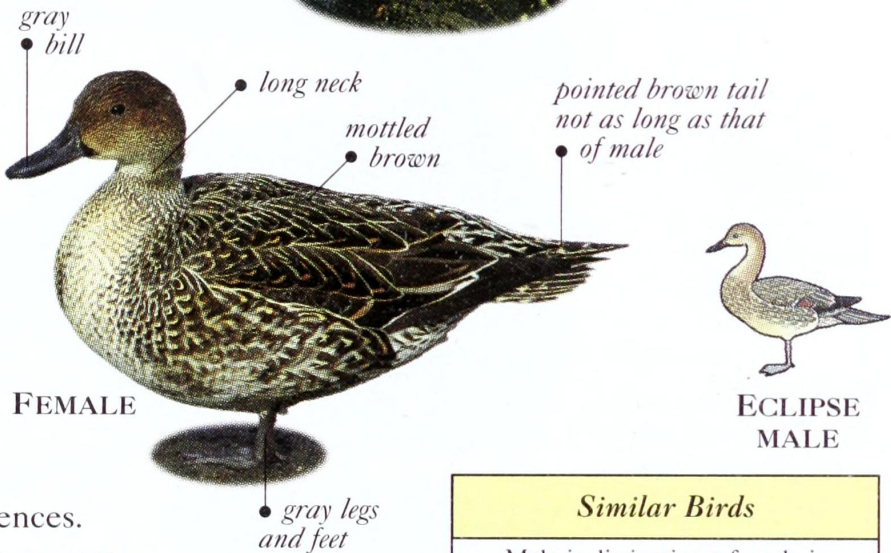
• **SONG** Female’s low quacks more guttural than those of female Mallard. Male utters weak nasal *geeee*



and double-noted whistle, *pruh* or *prripp*.

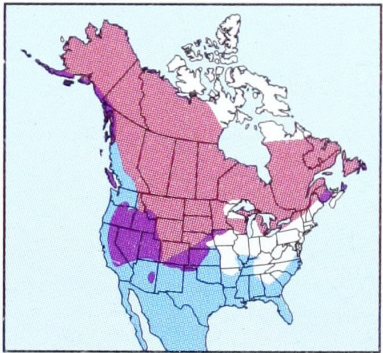
• **BEHAVIOR** Dabbling duck. Prefers shallows in freshwater, where it feeds primarily on vegetable material. Flocks of pintails have reputation of losing altitude rapidly, zigzagging in for a landing from considerable heights on wings that produce an audible “swish” and planing directly into a landing. Low-flying on breeding grounds, nesting individuals are sometimes killed by hitting utility wires and fences.

- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 22–25 days by female. Young leave nest within a few hours of hatching. First flight at 36–57 days. Young tended by female but find own food. 1 brood per year.
- **POPULATION** Abundant in West; very common in East.



Similar Birds

Male is distinctive • female is somewhat similar to many other female dabbling ducks but the longer tail and longer neck make it distinctive.



Widespread and abundant, but some surveys show decline since 1960s.

• **CONSERVATION** As with other dabbling ducks, lead shot ingested from bottom ooze often leads to death.

Flight Pattern	
	Direct flight with fast wing beats on long pointed wings.
Nest Identification	
Shape	Location

Lined with grasses, twigs, mosses, leaves, and added down • on dry ground among short vegetation near water • built by female • 3–12 olive-green, olive-buff, or cream eggs; elliptical to subelliptical or long oval, 2.2 inches long.

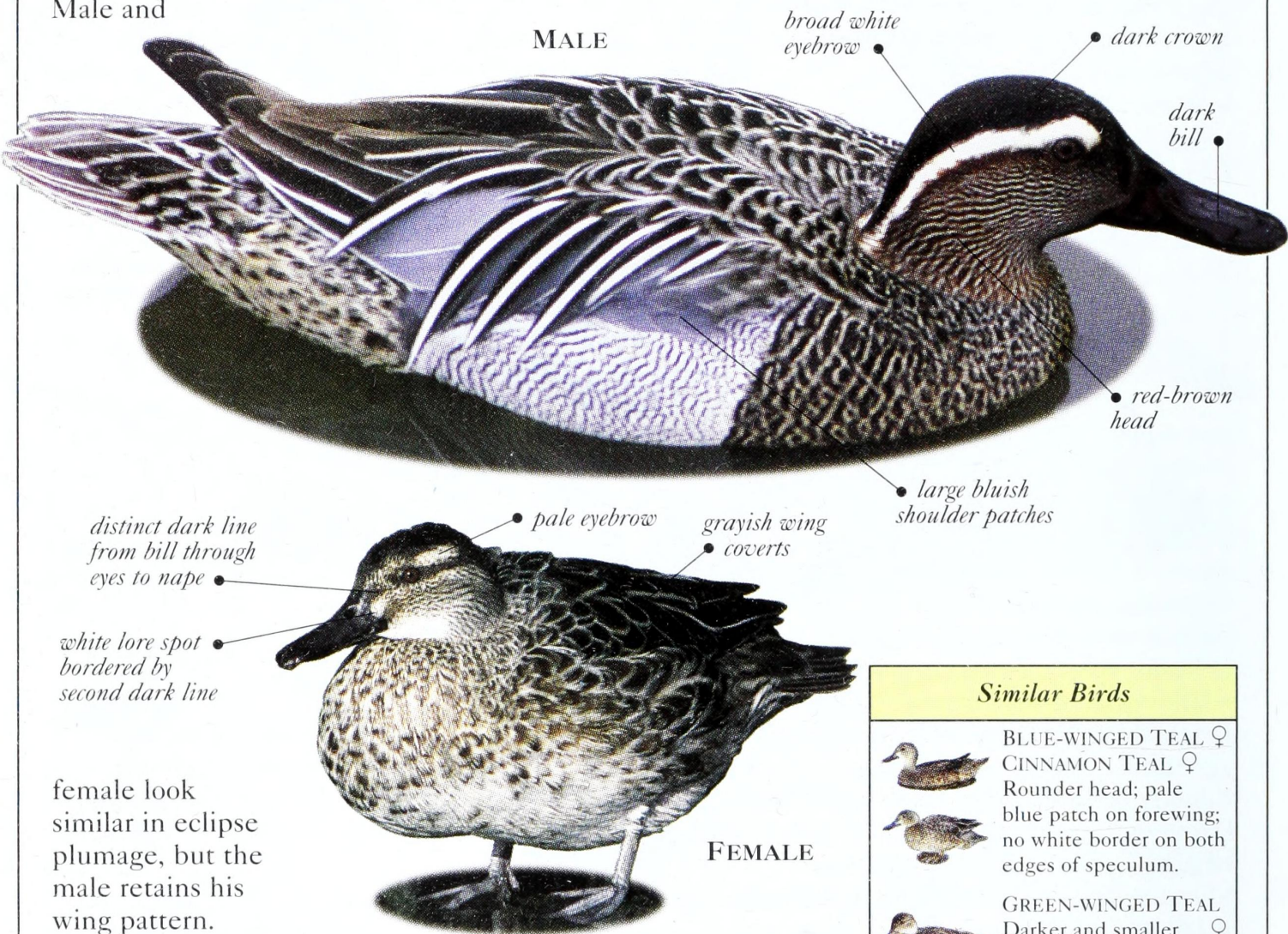
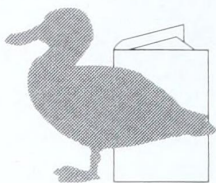
Plumage Sexes differ	Habitat	Migration Migratory	Weight 2.3 pounds
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DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Anas querquedula</i>	Length 15 inches	Wingspan 24–31 inches
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GARGANEY

A Eurasian dabbling duck, most Garganeys in eastern North America may be escaped birds. In flight males show prominent pale bluish-gray coverts and a shiny green speculum with white front and rear borders; the female's is less visible. Male and



female look similar in eclipse plumage, but the male retains his wing pattern.

- **SONG** Male makes distant rattling wooden note, *geg-geg-geg*. Female quacks.
- **BEHAVIOR** Feeds with bill scooping in shallow water. Eats mollusks and crustaceans.
- **BREEDING** Monogamous.

Flight Pattern

Swift agile direct flight with rapid wing beats.

- **NESTING** Incubation 21–23 days by female. Precocial young leave nest first day of hatching. First flight at about 44 days. Tended by female.
- **POPULATION** Casual to accidental status.

Nest Identification

Shape Location

In long grasses or under cover of bushes on ground in a dry place usually near water • built by female • 7–12 yellowish cream to light olive eggs, 1.85 x 1.3 inches long.

Similar Birds

BLUE-WINGED TEAL ♀

CINNAMON TEAL ♀

GREEN-WINGED TEAL ♀

Rounder head; pale blue patch on forewing; no white border on both edges of speculum.

Darker and smaller overall; no white border on both edges of speculum; no pale gray patch on forewing.



Plumage Sexes differ	Habitat	Migration Migratory	Weight 11.5 ounces
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Family ANATIDAE	Species <i>Anas crecca</i>	Length 12–16 inches	Wingspan 20–25 inches
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GREEN-WINGED TEAL

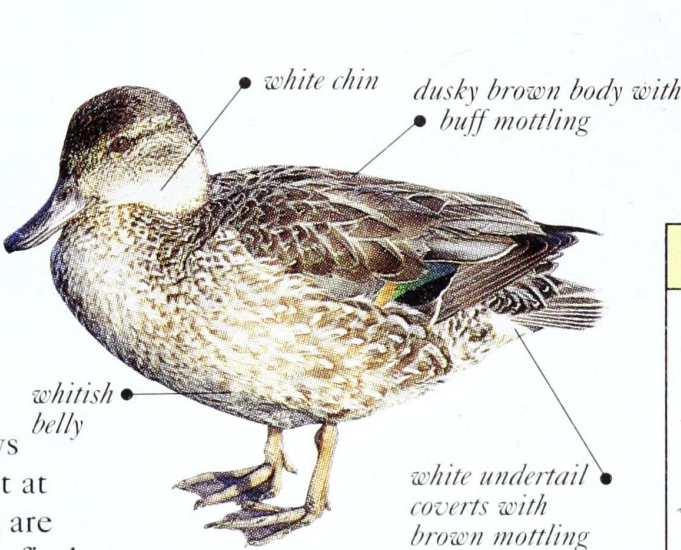
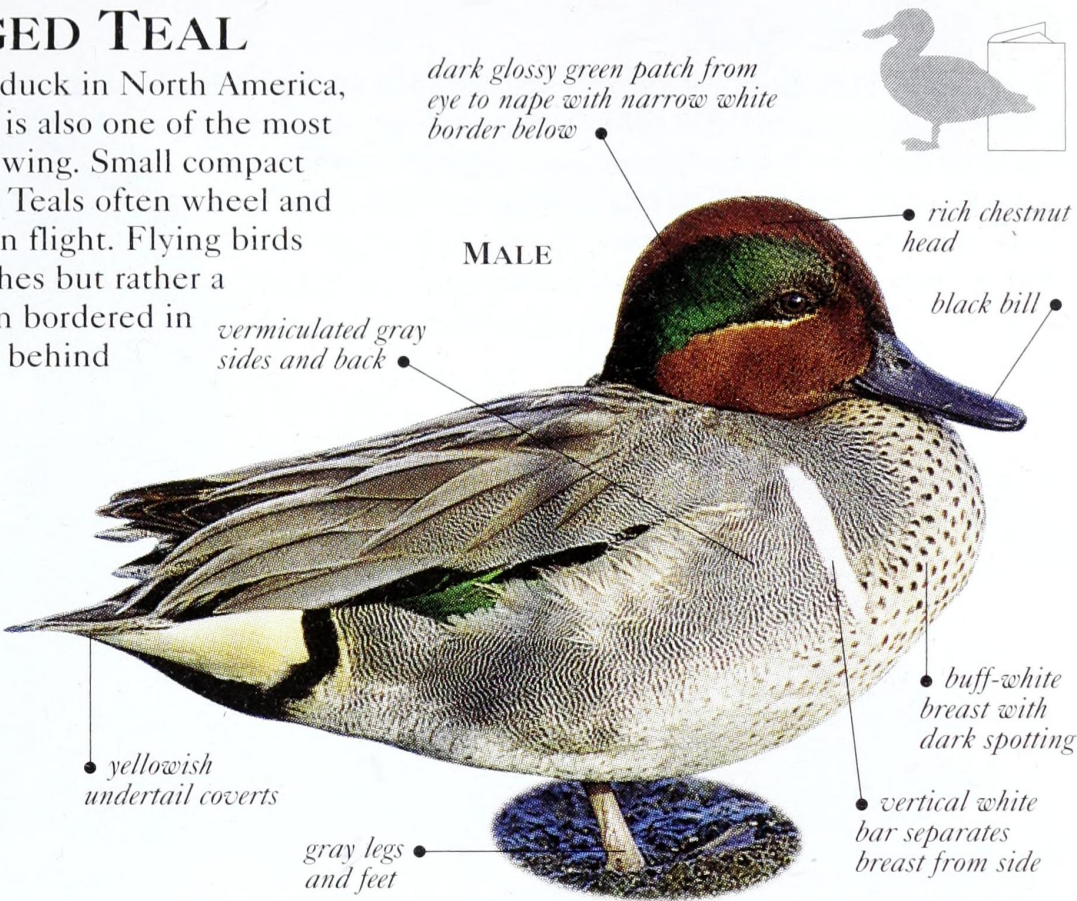
The smallest dabbling duck in North America, the Green-winged Teal is also one of the most agile and fastest on the wing. Small compact flocks of Green-winged Teals often wheel and bank like Rock Doves in flight. Flying birds show no pale wing patches but rather a metallic green speculum bordered in front with chestnut and behind with white.

• **SONG** In courtship a *KRICK-et* note, from which species name is derived; it has been likened to the voice of the Spring Peeper. Female makes a faint *quack*.

• **BEHAVIOR** Forages in shallows by tipping up. Walks easily on land. Feeds in fields, wood lots, and agricultural areas. Primarily feeds on vegetable materials.

• **BREEDING** Monogamous with forced extra pair copulation. Solitary nester.

• **NESTING** Incubation 20–24 days by female. First flight at about 34 days. Young are tended by female but find their own food.



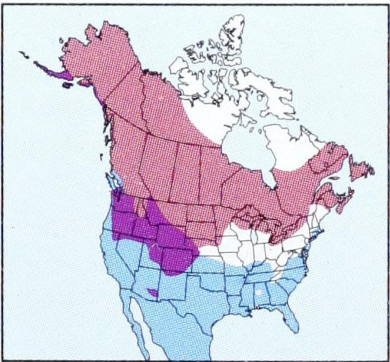
EURASIAN RACE MALE

Similar Birds	
	BLUE-WINGED TEAL In flight shows white belly and pale blue forewing patches • female has longer bill.
	CINNAMON TEAL ♀ Female is darker brown with longer bill.

Flight Pattern

Swift, sometimes erratic, direct flight.

- **POPULATION** Common. Increasing.
- **CONSERVATION** Vulnerable to ingesting spent lead shot from bottom mud while feeding.



Nest Identification	
Shape 	Location 
Grass, twigs, feathers, and leaves • lined with down • usually among grasses and weeds of meadows, sometimes in open woodlands or brush within 200 feet of water • built by female • 6–18 cream, light olive, buff, or dull white eggs; elliptical to subelliptical, 1.8 inches long.	

Plumage Sexes differ	Habitat 	Migration Migratory	Weight 12.8 ounces
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DATE _____ TIME _____ LOCATION _____

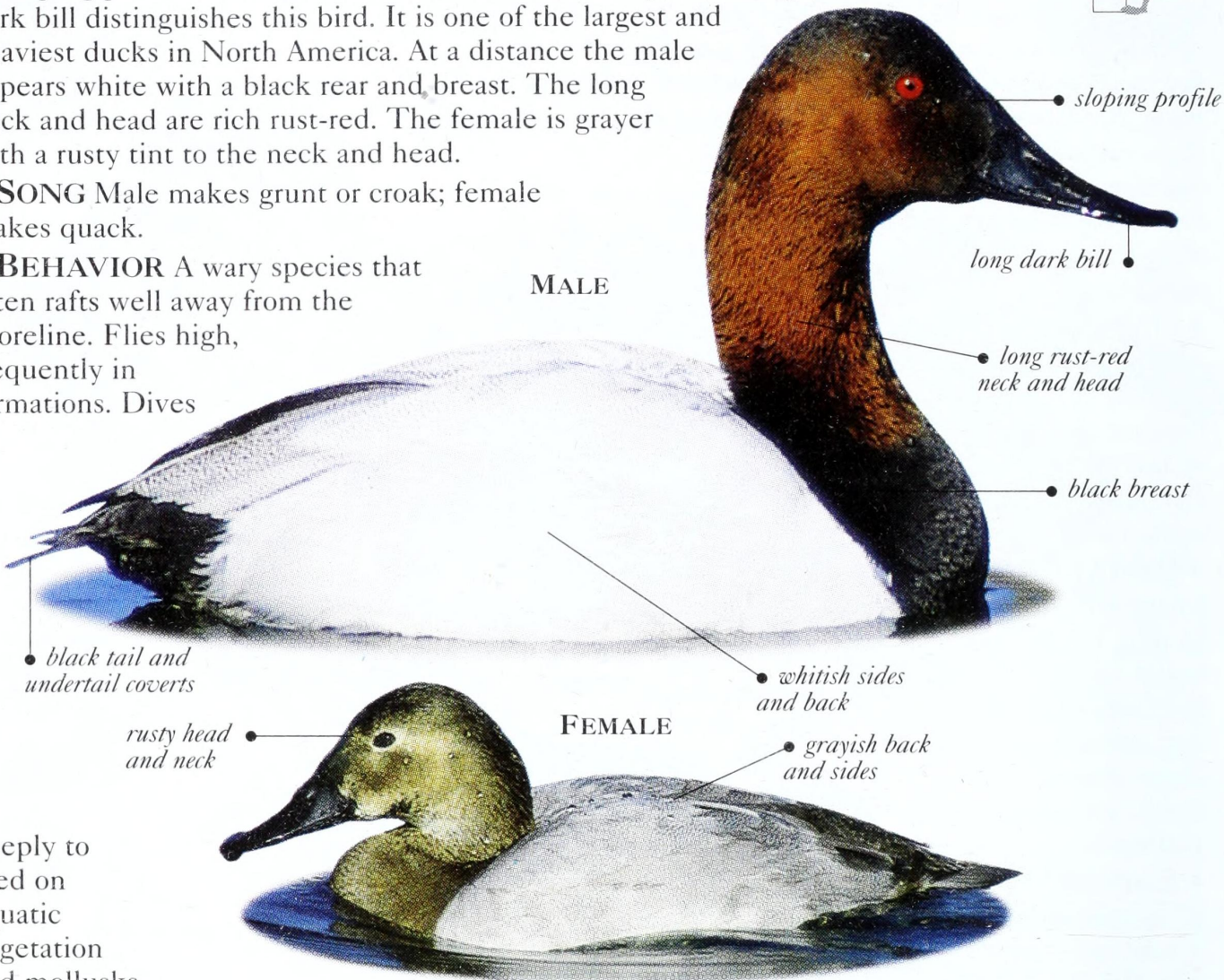
Family ANATIDAE	Species <i>Aythya valisineria</i>	Length 19–24 inches	Wingspan 28–36 inches
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CANVASBACK

A sloping profile from the front of its crown to the tip of its long dark bill distinguishes this bird. It is one of the largest and heaviest ducks in North America. At a distance the male appears white with a black rear and breast. The long neck and head are rich rust-red. The female is grayer with a rusty tint to the neck and head.

• **SONG** Male makes grunt or croak; female makes quack.

• **BEHAVIOR** A wary species that often rafts well away from the shoreline. Flies high, frequently in formations. Dives



deeply to feed on aquatic vegetation and mollusks.

• **BREEDING** Monogamous. Solitary nester.

• **NESTING** Incubation 23–29 days by female. First flight at about 56–60 days. Tended by female. 1 brood per year.

• **POPULATION** Common to uncommon but local. Declining for some time, but drastic drop in recent years because of drought and drainage of marshes where they breed.

Currently stable.

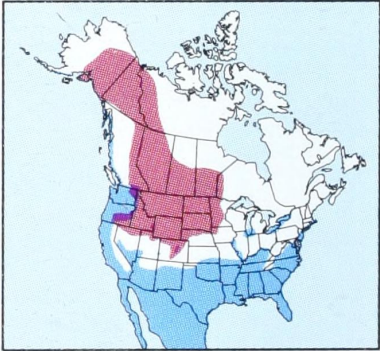
• **CONSERVATION** Nesting habitat loss primarily blamed for decline. Releases from hunting pressures and development of nesting habitats may have stabilized populations.

Flight Pattern		
Strong direct flight with rapid wing beats. Flies in straight line or V formation.		

Nest Identification	
Shape	Location

Dead vegetation lined with down • in marsh in stands of vegetation above shallow water; sometimes on dry ground • built by female • 7–12 grayish or greenish olive eggs, 2.4 inches in diameter.

Similar Birds	
	REDHEAD Lacks sloping profile • male has grayer sides • female is darker brown overall.



Plumage Sexes differ	Habitat	Migration Migratory	Weight 2.8 pounds
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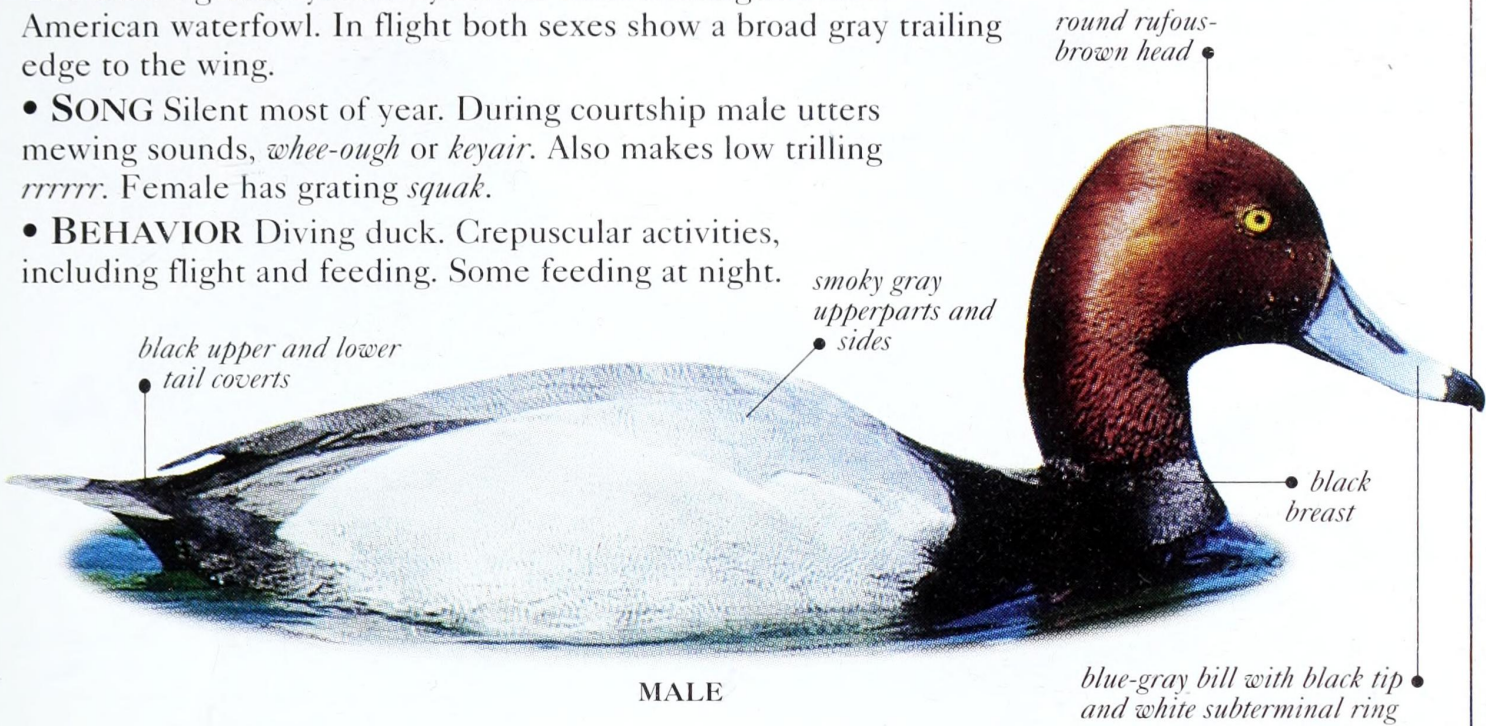
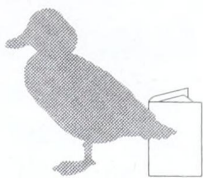
DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Aythya americana</i>	Length 18–22 inches	Wingspan 29–35 inches
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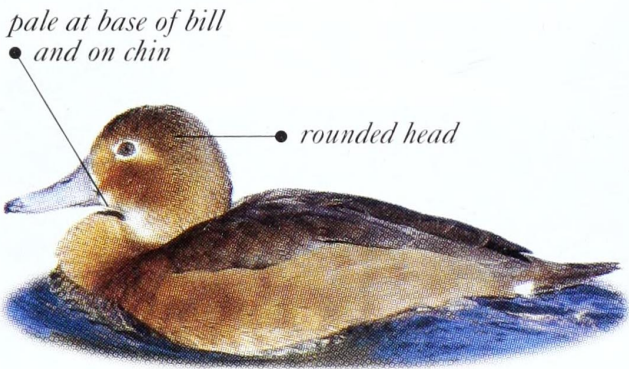
REDHEAD

A diving duck of freshwater marshes in summer, this bird congregates in large numbers on marine bays, estuaries, and big lakes in winter. The male's golden yellow eye is the most striking of North American waterfowl. In flight both sexes show a broad gray trailing edge to the wing.

- **SONG** Silent most of year. During courtship male utters mewling sounds, *whee-ough* or *keyair*. Also makes low trilling *rrrrrr*. Female has grating *squak*.
- **BEHAVIOR** Diving duck. Crepuscular activities, including flight and feeding. Some feeding at night.



MALE



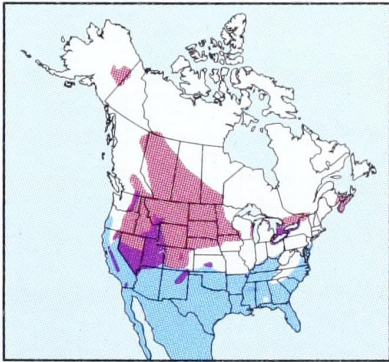
FEMALE

Primary diet of aquatic vegetation. Female appears to take initiative in courtship, often chasing males.

- **BREEDING** Monogamous. Brood parasite.
- **NESTING** Incubation 23–29 days by female. Young leave nest about 1 day after hatching. First flight at 56–73 days. Young tended by female but find own food. 1 brood per year.
- **POPULATION** Locally common. Declining in East. Far fewer than historical levels. Decrease due to loss of nesting habitat to agriculture, draining of wetlands, and drought.

Similar Birds

- ♂ CANVASBACK
Male is whiter on sides and back; longer all-dark bill; sloping profile.
- ♀ GREATER SCAUP
LESSER SCAUP
Pale color on wings of female does not extend to primaries.
- ♀ RING-NECKED DUCK
Female has peaked head.



Flight Pattern



Rapid direct flight with strong wing beats. Flies in V formation.

Nest Identification

Shape  Location 

Dead vegetation and down anchored to standing growth • on bed of reeds and cattails connected to vegetation or set in thick marsh grasses above water • built by female • 9–14 pale olive, buff, or dull white eggs, 2.4 inches long • number of eggs hard to determine because Females lay eggs in nests of other Redheads.

Plumage Sexes differ	Habitat  	Migration Migratory	Weight 2.6 pounds
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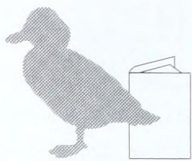
DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Aythya collaris</i>	Length 14–18 inches	Wingspan 24–30 inches
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RING-NECKED DUCK

This puffy-headed diving duck with a peaked crown prefers small freshwater ponds, wooded lakes, and swamps. On water the male appears dark with whitish gray sides separated from the black breast by a white crescent that is clearly discernible at a distance. Both sexes have a white ring on the bill, white bellies, bluish gray legs and feet, and show a gray wing stripe in flight. The cinnamon ring at the base of the neck, which gives the duck its name, is a poor field mark, seen only at close range in good light.

peaked black head with purplish gloss



blue-gray bill with black tip and broad white subterminal ring

MALE

pale gray sides and flanks

black back, tail coverts, and tail

black neck and breast

• SONG

Generally silent. Male makes a faint wheezy whistle; female makes harsh *deeeer*.

• BEHAVIOR

Swims lightly with head up. Excellent diver. Aquatic plants more than 80 percent of diet. Feeds on bottom as deep as 40 feet below surface.

• BREEDING Monogamous. Solitary nester.

• NESTING Incubation 25–29 days by female. Young leave nest in 12–24 hours. First flight after 49–56 days. Young tended by female but find own food. 1 brood per year.

peaked head

white eye ring and thin postocular stripe



pale face at base of bill, chin, and throat

FEMALE

Similar Birds



GREATER SCAUP
LESSER SCAUP
White wing stripe • male has gray back • female has white ring around bill.



TUFTED DUCK
Males have white flanks • head rounded with tuft on back of crown; both sexes lack broad white band on bill • female lacks pale eye line; has shorter tuft on crown.

Flight Pattern



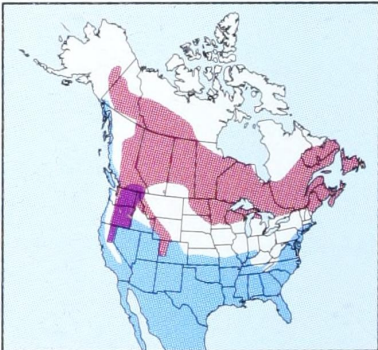
Direct flight with rapid wing beats in loose flocks.

Nest Identification

Shape    Location  

• POPULATION Fairly common and widespread. Stable or increasing.

• CONSERVATION As with other ducks that feed on the bottom, may ingest lead shot and be susceptible to lead poisoning.



Grasses, sedges, and weeds • lined with down and marsh plants • on dry hammock, clump of brush, or floating mat of vegetation, close to open water or just above water in marsh border of pond or slough • built by female • 6–14 olive, gray, olive-brown, or green-buff eggs; elliptical to oval, 2.3 inches long.

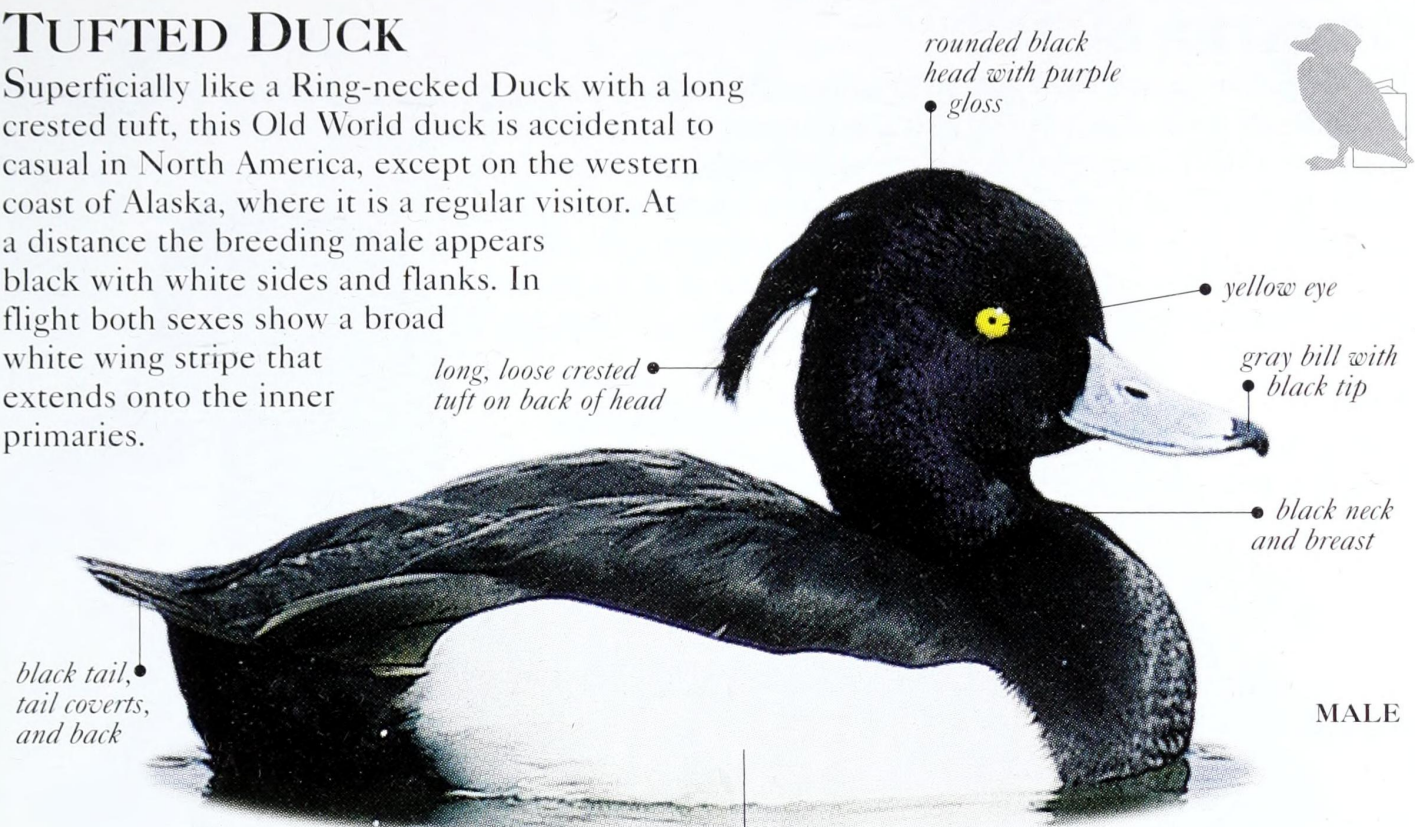
Plumage Sexes differ	Habitat  	Migration Migratory	Weight 1.6 pounds
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DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Aythya fuligula</i>	Length 18–22 inches	Wingspan 30–35 inches
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TUFTED DUCK

Superficially like a Ring-necked Duck with a long crested tuft, this Old World duck is accidental to casual in North America, except on the western coast of Alaska, where it is a regular visitor. At a distance the breeding male appears black with white sides and flanks. In flight both sexes show a broad white wing stripe that extends onto the inner primaries.



MALE



FEMALE

- **SONG** Usually silent. Various soft growling notes and low whistles.
- **BEHAVIOR** Excellent diver. Prefers freshwater lakes and reservoirs but can be found in coastal marshes, bays, and estuaries in company of other diving ducks. Feeds on plants, crustaceans, mollusks, and aquatic insects.
- **BREEDING** Monogamous. Sometimes forms loose colonies.

- **NESTING** Incubation 23–28 days. First flight within 45–50 days. Young tended by female. 1 brood per year.
- **POPULATION** Uncommon to rare. Not known to breed in North America; a visitor during migration and winter.

Similar Birds



♂



♀

RING-NECKED DUCK
Male has gray sides and flanks; white crescent separates black breast from gray side. • both sexes have gray wing stripe.



♂



♀

GREATER SCAUP
LESSER SCAUP
Males have gray backs • females have bolder white face patches at base of bill.



♂



♀

Flight Pattern



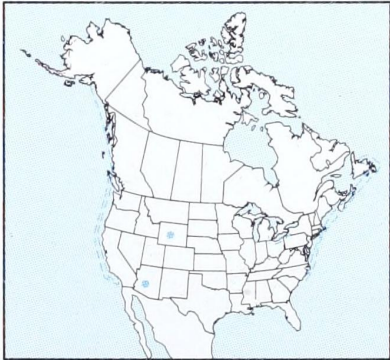
Swift direct flight with steady wing beats.

Nest Identification

Shape 

Location 

Grasses and dark gray down • hidden in reeds or under bushes close to water • 7–10 yellow, brown, or greenish eggs.



Plumage Sexes differ	Habitat 	Migration Migratory	Weight 1.5 pounds
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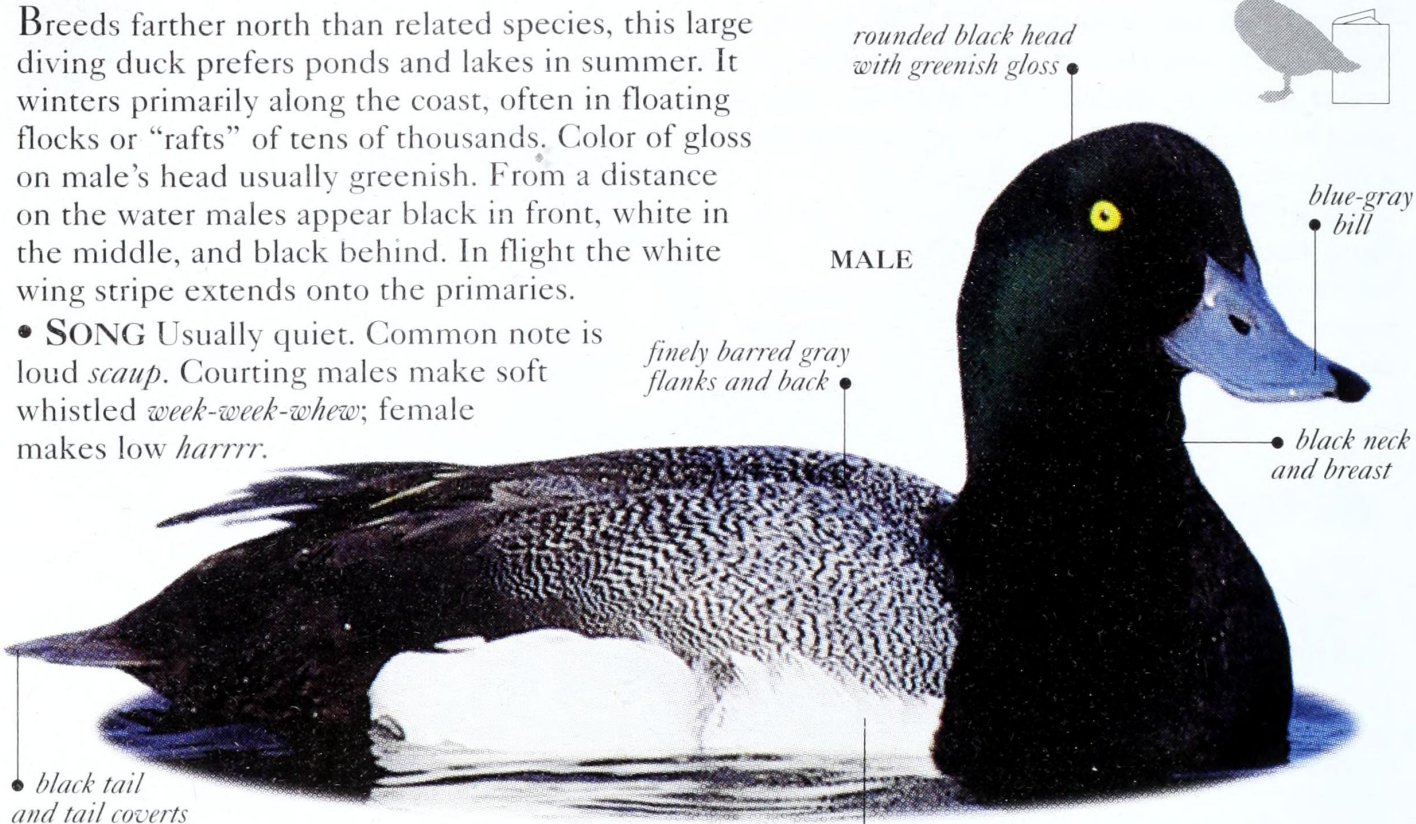
DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Aythya marila</i>	Length 15–20 inches	Wingspan 30–34 inches
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GREATER SCAUP

Breeds farther north than related species, this large diving duck prefers ponds and lakes in summer. It winters primarily along the coast, often in floating flocks or “rafts” of tens of thousands. Color of gloss on male’s head usually greenish. From a distance on the water males appear black in front, white in the middle, and black behind. In flight the white wing stripe extends onto the primaries.

- **SONG** Usually quiet. Common note is loud *scaup*. Courting males make soft whistled *week-week-whew*; female makes low *harrrr*.

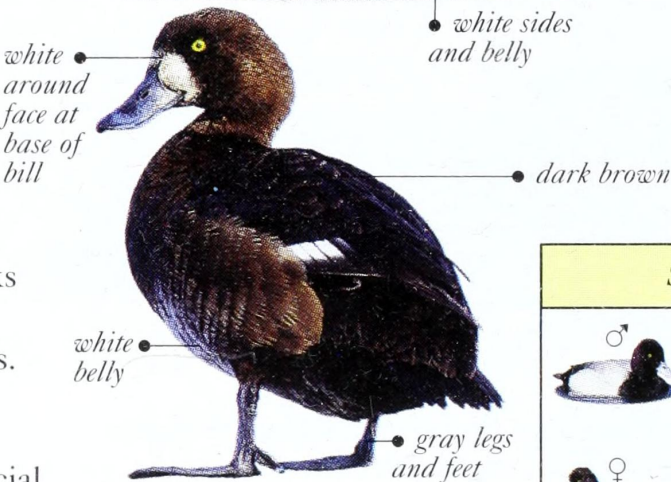


- **BEHAVIOR** Diving duck. Often winters in huge flocks. Dives to 20 feet below surface to feed on variety of insects, plants, and vertebrates in summer. Diet at sea primarily mollusks and vegetable matter.

- **BREEDING** Monogamous. May nest in colonies.

- **NESTING** Incubation 24–28 days by female. Precocial young led to water shortly after hatching. First flight at 35–42 days.

Young tended by female but find own food. 1 brood per year.

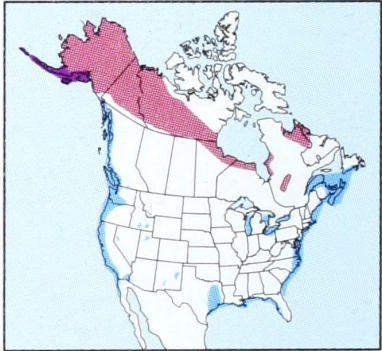


Similar Birds	
	• LESSER SCAUP Smaller • male has grayer sides; more pointed head with usually purplish gloss
	• females similar; white on wing does not extend onto primaries.

Flight Pattern
Direct flight with strong rapid wing beats.

Nest Identification
Shape Location

- **POPULATION** Common to uncommon. Abundant in winter, with most individuals wintering along seacoasts.
- **CONSERVATION** Heavy winter concentrations in coastal bays may be vulnerable to oil spills and other pollution.



Lined with dead plant material and down • usually very close to water on an island, shoreline, or mats of floating vegetation • built by female • 5–11 dark olive-buff eggs, 2.5 inches long.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 2.1 pounds
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DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Aythya affinis</i>	Length 15–18 inches	Wingspan 24–33 inches
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LESSER SCAUP

Like the very similar Greater Scaup, at a distance the male appears dark in front, white in the middle, and dark behind. The Lesser Scaup has a more pointed head. Color of gloss on male's head usually purplish. In flight the white wing stripe confined to the secondaries. The Lesser Scaup is more commonly seen inland in winter than the Greater Scaup and is perhaps the most abundant diving duck in North America.

• **SONG** Courting males utter low, whistled *whew*. Females make odd

rattling purr, *kwuh-h-h-h*.

• **BEHAVIOR** Diving duck. Behavior similar to closely related Greater Scaup. Diet varies with habitat but fairly evenly distributed between plant and animal materials.

• **BREEDING** Monogamous. Solitary nester.

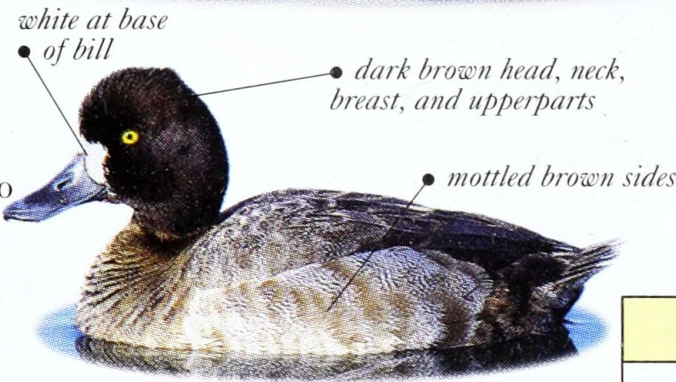
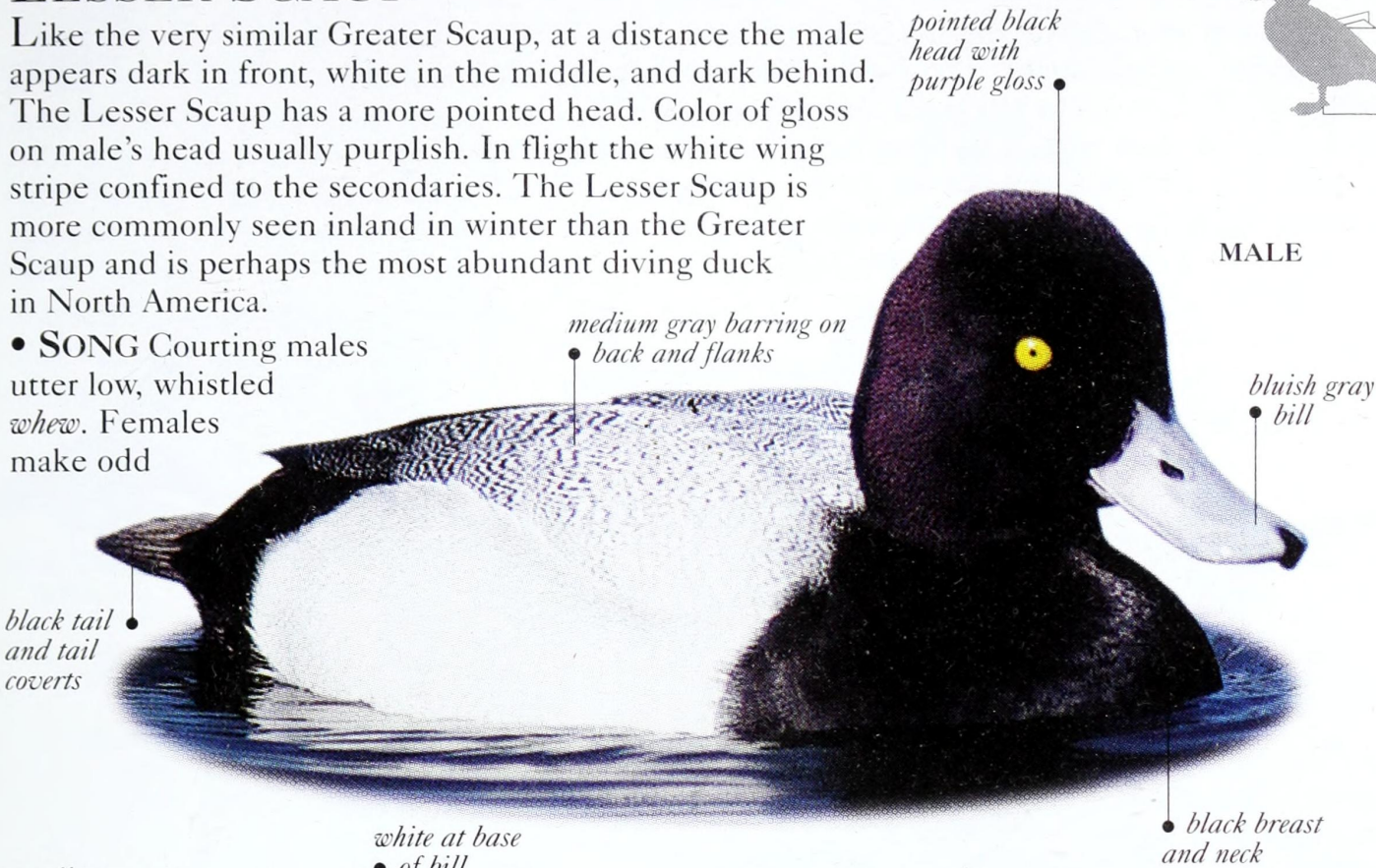
• **NESTING** Incubation 21–28 days by female. Young leave nest shortly after hatching. First flight after 45–50 days. Young tended by female but find own food.

• **POPULATION** Common. Slight decrease in 20th century.

• **CONSERVATION** Deaths due to fishing nets and lines may be significant. Like many other waterfowl, ingests lead shot on bottom while feeding, often resulting in death. Increased use of steel shot intended to eliminate this.



MALE

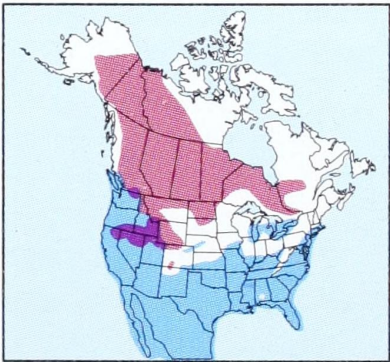


FEMALE

Similar Birds



GREATER SCAUP
Larger; white wing stripe extends through secondaries and onto primaries • male has whiter sides; more rounded head.



Flight Pattern

Direct, swift flight with strong wing beats.

Nest Identification

Shape Location

Addition of some grasses • lined with down • on dry land close to water, often on islands, in tall prairie grass • built by female • 6–15 olive or olive-buff eggs; elliptical to nearly oval, 2.3 inches long.

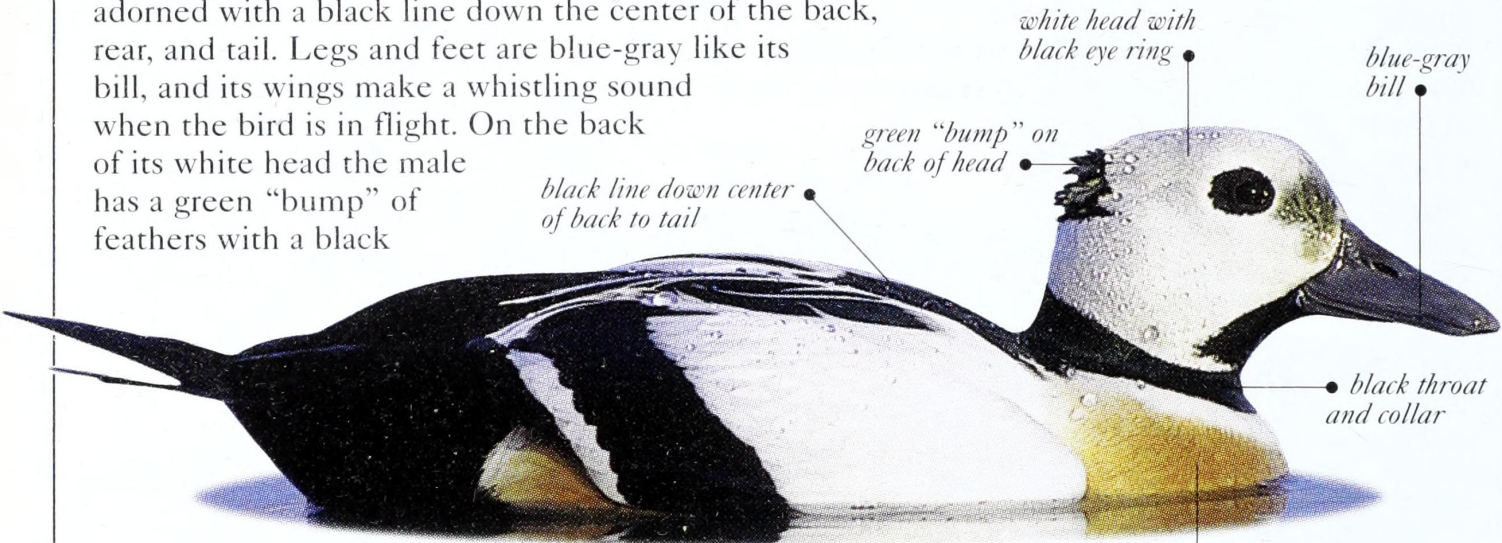
Plumage Sexes differ	Habitat	Migration Migratory	Weight 1.9 pounds
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DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Polysticta stelleri</i>	Length 17–19 inches	Wingspan 28–30 inches
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STELLER’S EIDER

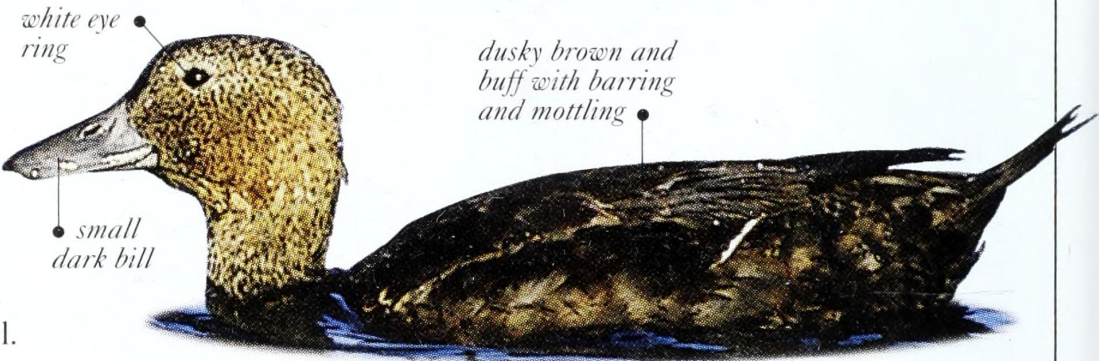
The smallest eider (about the size of a Surf Scoter), the Steller’s Eider is rarely found outside Alaska. The male is the only eider with bright, buffy underparts. It has a short bill and does not have the stout chunky appearance of other eiders. Its white head, back, and sides are adorned with a black line down the center of the back, rear, and tail. Legs and feet are blue-gray like its bill, and its wings make a whistling sound when the bird is in flight. On the back of its white head the male has a green “bump” of feathers with a black



MALE

spot on the bottom center. The white sides also have an isolated black spot just above the waterline sometimes seen when the bird is swimming.

- **SONG** Generally silent. Courting male gives low crooning notes; female makes harsh growl.
- **BEHAVIOR** Feeds primarily on crustaceans and mollusks in clear waters along rocky coasts. Must run on water before taking off.
- **BREEDING** Monogamous.
- **NESTING** Incubation by female, time undetermined. Young leave nest shortly after hatching. Time of first flight unknown. Young tended by female but find own food. 1 brood per year.



FEMALE

Similar Birds
None in North American range.

Flight Pattern
Swift direct flight with fast wing beats.

<i>Nest Identification</i>	
Shape 	Location 

- **POPULATION** Uncommon to common and local. Alaskan population has declined significantly in recent decades.
- **CONSERVATION** Grave concern over significant population declines.



Often deep holes in tundra • lined with bits of plant material and large amounts of down • on ground near open water in open tundra or surrounded by low scrub • built by female • 5–10 olive-buff eggs with darker shades, 2.4 inches long.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 1.7 pounds
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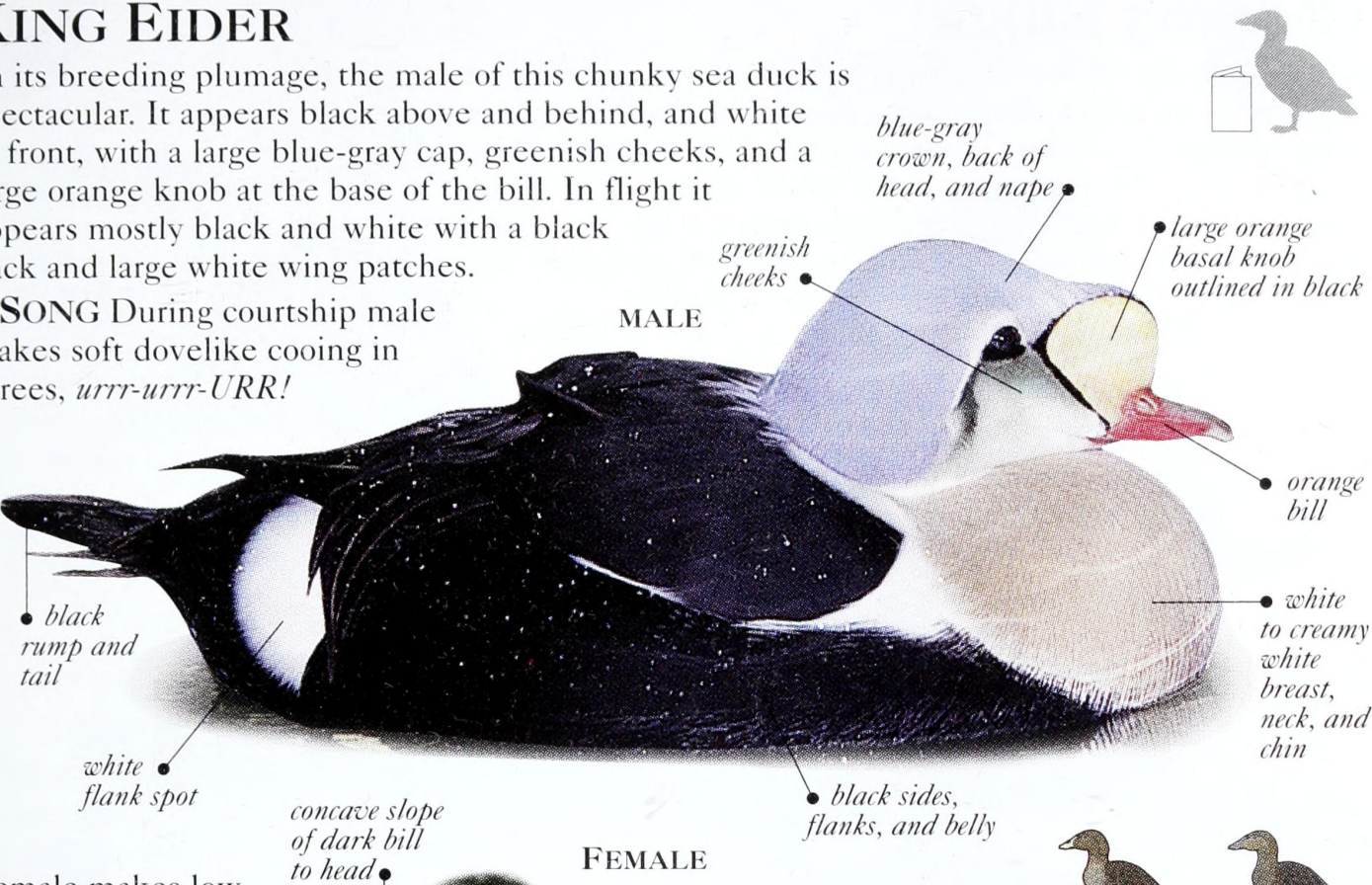
DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Somateria spectabilis</i>	Length 18–25 inches	Wingspan 35–40 inches
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KING EIDER

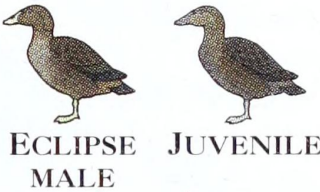
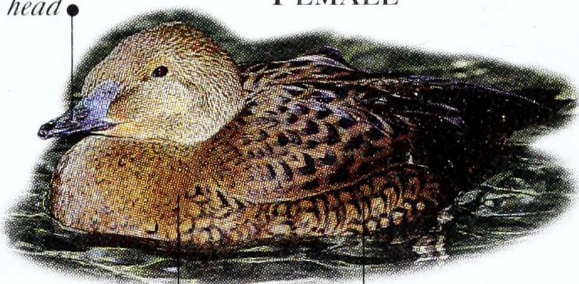
In its breeding plumage, the male of this chunky sea duck is spectacular. It appears black above and behind, and white in front, with a large blue-gray cap, greenish cheeks, and a large orange knob at the base of the bill. In flight it appears mostly black and white with a black back and large white wing patches.

• **SONG** During courtship male makes soft dovelike cooing in threes, *urrr-urrr-URR!*



Female makes low *kuck* or *k-wack*; also guttural croaking, *gag, gag, gag*.

- **BEHAVIOR** Often fly in big flocks abreast, not one behind the other. Favors rocky shores and reefs. Dives to depths of 180 feet to feed on mollusks and crustaceans, its primary food.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 22–24 days by female. Precocial young leave nest shortly after hatching. First flight at 30–50 days. Young tended by female but find own food. 1 brood per year.
- **POPULATION** Common to abundant in breeding range.

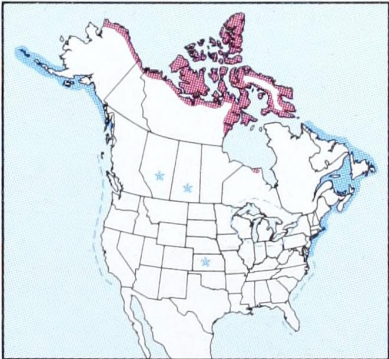


Similar Birds	
	COMMON EIDER Black cap; white back • female has sloping profile and barred sides.
	
	SPECTACLED EIDER Black breast and spectacles; white back • female has pale spectacles.
	

Flight Pattern	
	
Swift direct flight with rapid wing beats. Flies in straight line formation.	

Nest Identification	
Shape 	Location 

Uncommon in winter in south Alaska, Great Lakes, or New York, but wintering population in Great Lakes is increasing. Abundant in its remote northern range. Population totals several million. Casual on East and West Coasts.



Lined with bits of plant material and large amounts of down • on raised dry ground not far from water • built by female • 3–7 olive, buff, or pale olive eggs; 2.7 inches long.

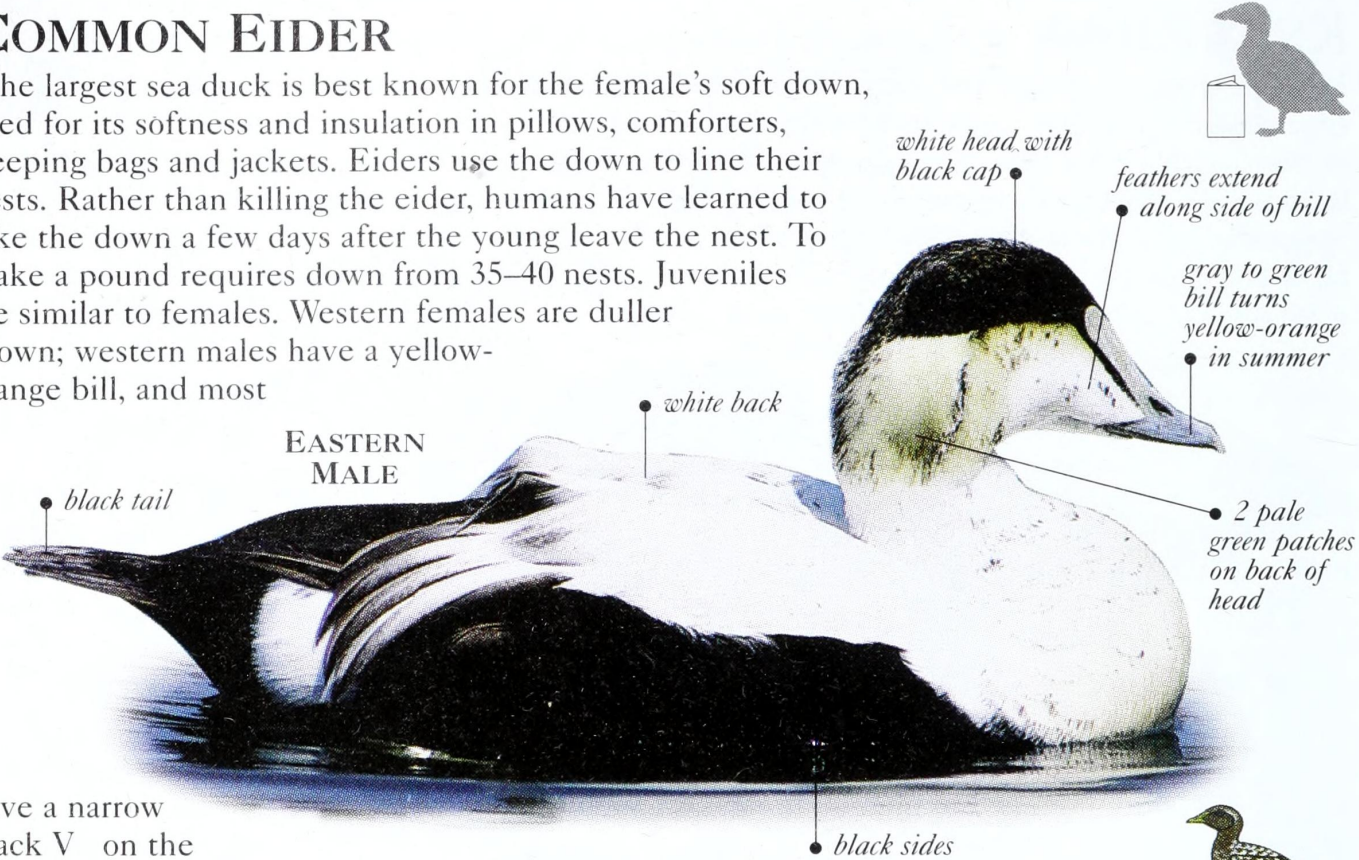
Plumage Sexes differ	Habitat   	Migration Migratory	Weight 3.7 pounds
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DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Somateria mollissima</i>	Length 23–27 inches	Wingspan 35–42 inches
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COMMON EIDER

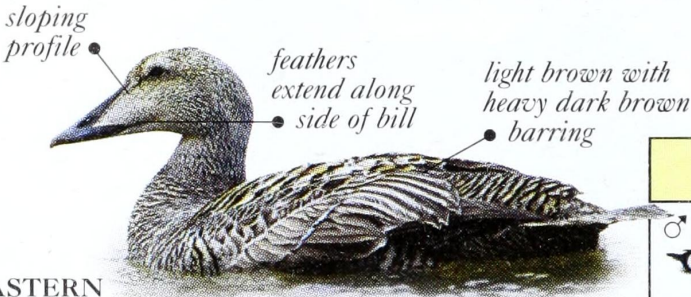
The largest sea duck is best known for the female’s soft down, used for its softness and insulation in pillows, comforters, sleeping bags and jackets. Eiders use the down to line their nests. Rather than killing the eider, humans have learned to take the down a few days after the young leave the nest. To make a pound requires down from 35–40 nests. Juveniles are similar to females. Western females are duller brown; western males have a yellow-orange bill, and most



have a narrow black V on the throat.

• **SONG** Male makes pigeonlike cooo or hoarse kor-er-korkorr-kor; also moans. Female makes hoarse quacking sound. Silent in winter.

EASTERN FEMALE



ECLIPSE MALE

- **BEHAVIOR** Feeds at low tide by day. Dives only 33–60 feet deep. Uses wings to swim underwater and can fly straight out of water. Breaks shellfish shells with gizzard.
- **BREEDING** Monogamous. Nests in colonies.
- **NESTING** Incubation 25–30 days by female. Young led to water by female after hatching. Female feeds young with help of another female. First flight at about 56 days. 1 brood per year.

Flight Pattern



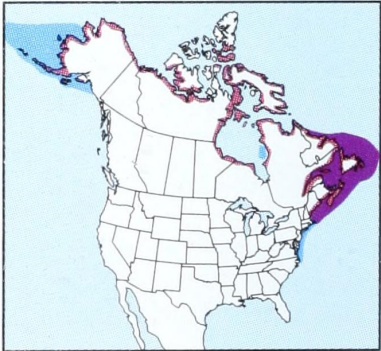
Swift direct flight. Birds fly abreast, often in long lines.

Nest Identification

Shape 

Location 

- **POPULATION** Abundant to common; somewhat local.
- **CONSERVATION** Local populations vulnerable to oil spills and other forms of pollution. Females still pursued for valuable down. Heavily hunted in the Arctic.



Similar Birds

 **KING EIDER**
Male has black back; blue-gray crown; lacks sloping profile • female has chevron pattern and lacks sloping profile.

 **SPECTACLED EIDER**
Male has large white “goggles” with black border • female has pale brown “goggles.”

Plumage Sexes differ	Habitat 	Migration Some migrate	Weight 4.9 pounds
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Family ANATIDAE	Species <i>Histrionicus histrionicus</i>	Length 15–21 inches	Wingspan 24–28 inches
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HARLEQUIN DUCK

The male of this small diving duck appears entirely dark from a distance, but at close range the plumage consists of a wild pattern of bold white and black crescents, lines, and spots. Females are dark grayish brown with stubby bills and three white spots on each side of the face. Juveniles are similar to females.

• **SONG** Usually silent. In courtship male gives mouselike squeak. Both sexes have low croaking calls.

• **BEHAVIOR**

Favors fast-flowing mountain streams or isolated pools during breeding season. Found along rocky turbulent seacoasts in winter. Dives for food, swimming underwater using both wings and feet. May walk on bottom of mountain stream with head down feeding on aquatic insects. Mollusks and crustaceans form bulk of winter diet.

• **BREEDING** Monogamous.

• **NESTING** Incubation 27–30 days by female. Young leave nest shortly after hatching. First flight at 35–42 days. Young tended by female but find own food. 1 brood per year.

• **POPULATION** Common in the West; uncommon in the East. Stable in the Northwest, but has declined there during the past century.

Flight Pattern



Rapid direct flight, often low over water.

Nest Identification

Shape 

Location 

Grasses, twigs, and weeds lined with down • on ground close to water, well hidden among rocks, under brush, or in hollow tree • built by female • 3–10 pale buff or cream eggs, 2.3 inches long.

Plumage Sexes differ	Habitat  	Migration Migratory	Weight 1.5 pounds
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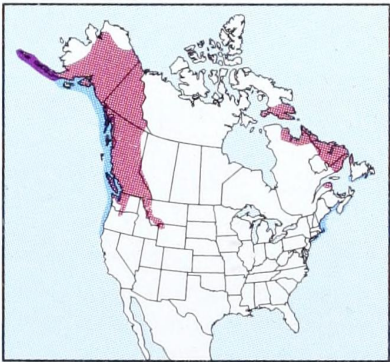


Similar Birds

Male is unmistakable.



BUFFLEHEAD ♀
Smaller • female has single white spot on face.



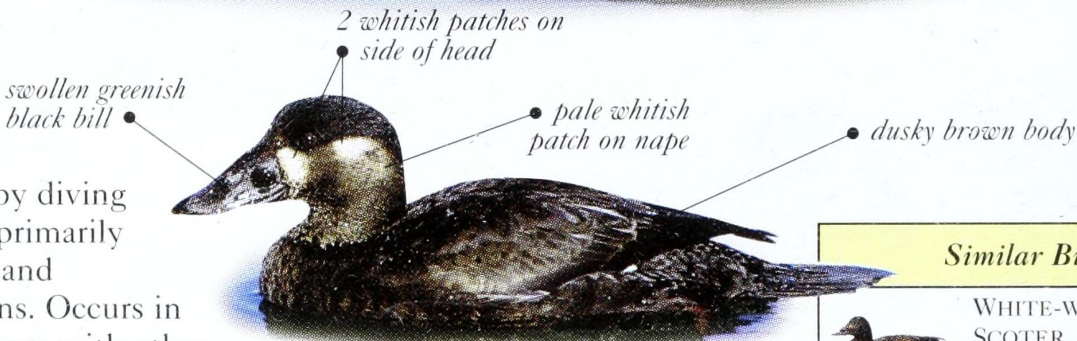
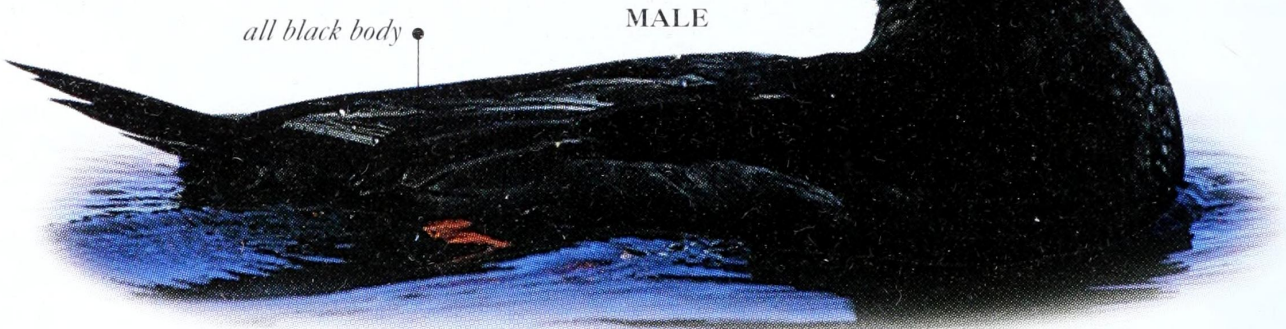
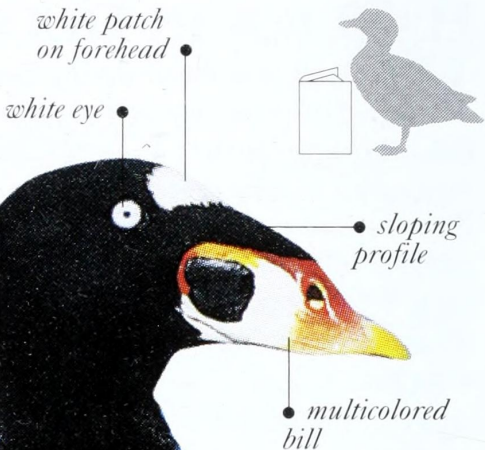
DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Melanitta perspicillata</i>	Length 17–21 inches	Wingspan 30–36 inches
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SURF SCOTER

The male’s black-and-white head pattern has given it the nickname “skunk head.” The bill of both sexes is swollen at its base, and that of the male is a bright combination of red, orange, black, and white. The bill and forehead form a slope similar to that of the Canvasback. In flight the wings are dark and have no pattern.

- **SONG** Usually silent but sometimes makes low throaty notes. During courtship male whistles and has gurgling call.
- **BEHAVIOR** Very common along the coasts in winter, where it often feeds beyond the



surf line by diving for food, primarily mollusks and crustaceans. Occurs in rafts offshore with other two scoters. Long strings of scoters may be seen as they move along the coast in winter.

- **BREEDING** Monogamous.
- **NESTING** Incubation by female. Young leave nest shortly after hatching. First flight within 55 days. Fed by female. 1 brood per year.

Flight Pattern

Rapid direct flight with strong wing beats. Flies in straight line formation.

Nest Identification

Shape

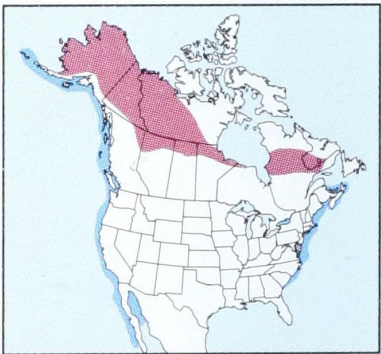
Location

- **POPULATION** Common to abundant. May have declined, but now stable and numerous. Declining in the West; the cause is unknown, but hunting is a possibility.

Similar Birds

WHITE-WINGED ♀ SCOTER
Female has white wing patch.

BLACK SCOTER
Lacks head pattern
• female has pale face and foreneck.



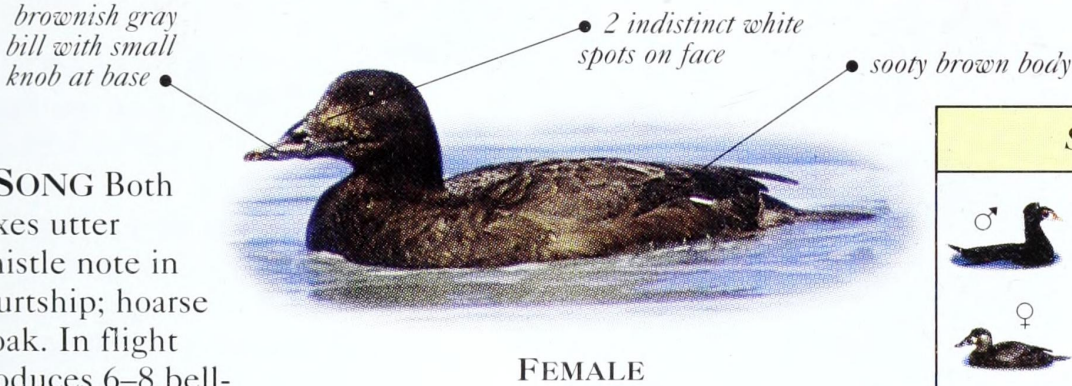
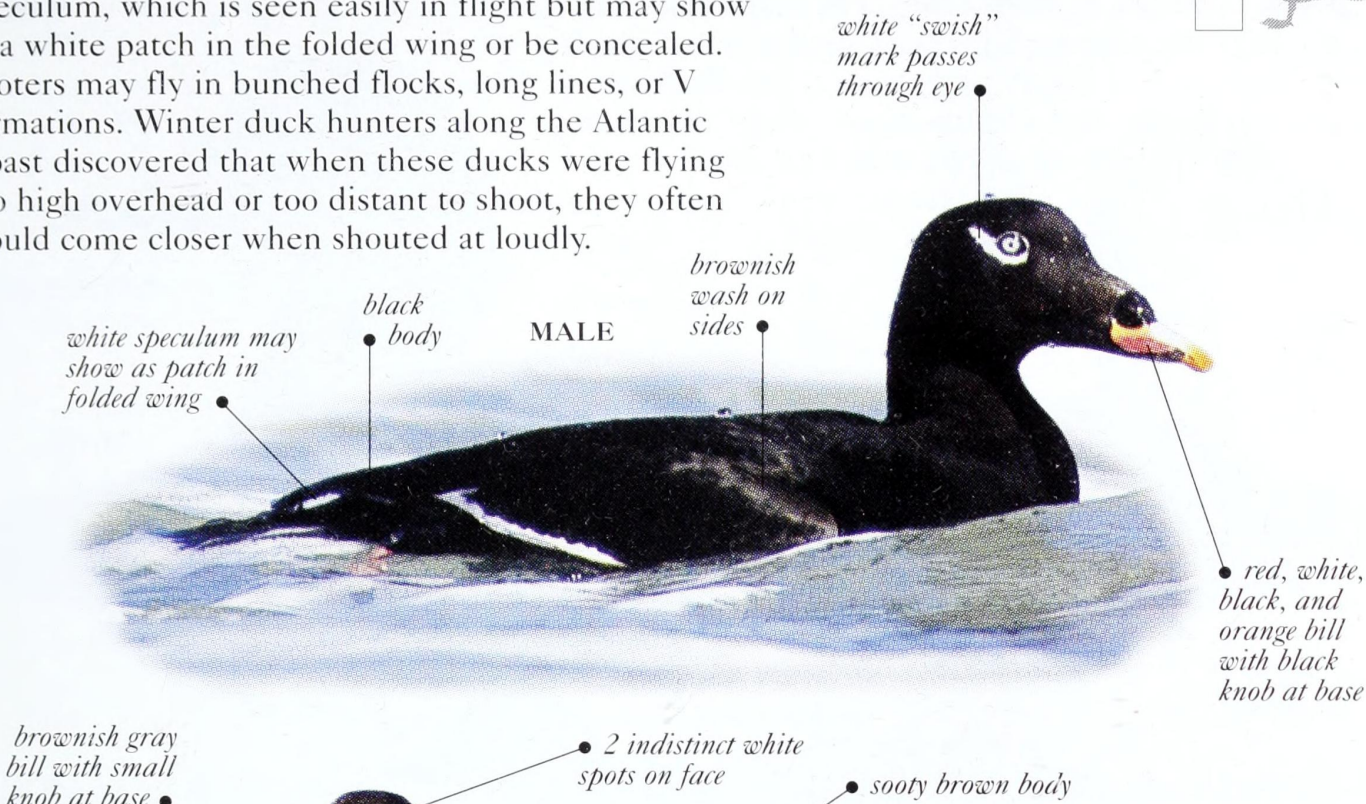
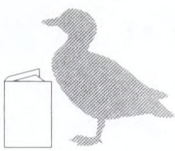
Lined with down and weeds • on ground, often some distance from water, and well hidden under low tree branches or grass clumps • built by female • 5–8 pale buff, pinkish, or buff-white eggs, 2.4 inches long.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 2.2 pounds
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Family ANATIDAE	Species <i>Melanitta fusca</i>	Length 19–24 inches	Wingspan 33–41 inches
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WHITE-WINGED SCOTER

The largest of the scoters is the only one with a white speculum, which is seen easily in flight but may show as a white patch in the folded wing or be concealed. Scoters may fly in bunched flocks, long lines, or V formations. Winter duck hunters along the Atlantic Coast discovered that when these ducks were flying too high overhead or too distant to shoot, they often would come closer when shouted at loudly.

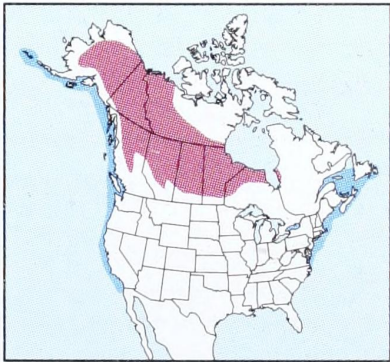


- **SONG** Both sexes utter whistle note in courtship; hoarse croak. In flight produces 6–8 bell-like notes.
- **BEHAVIOR** Dives to depths of 40 feet. Feeds primarily on shellfish, which it swallows whole and breaks up with grinding action of powerful gizzard.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 25–31 days by female. First flight at 63–75 days. Tended by female. 1 brood per year.

Flight Pattern		
Direct flight with steady wing beats that sometimes seem heavy and labored. Flies in straight line or V formation.		

Nest Identification	
Shape	Location
Lined with leaves, sticks, and down • on ground • built by female • 5–17 light ocher, pinkish, or creamy buff eggs; nearly elliptical, 2.6 inches long.	

Similar Birds	
♂	SURF SCOTER Lacks white wing patches • male has white forehead and patch on back of neck
♀	• female has 2 white patches on sides of face.
♂	BLACK SCOTER Lacks white wing patches • male has solid black head
♀	• female has whitish-brown cheeks, chin, throat, and sides of neck.



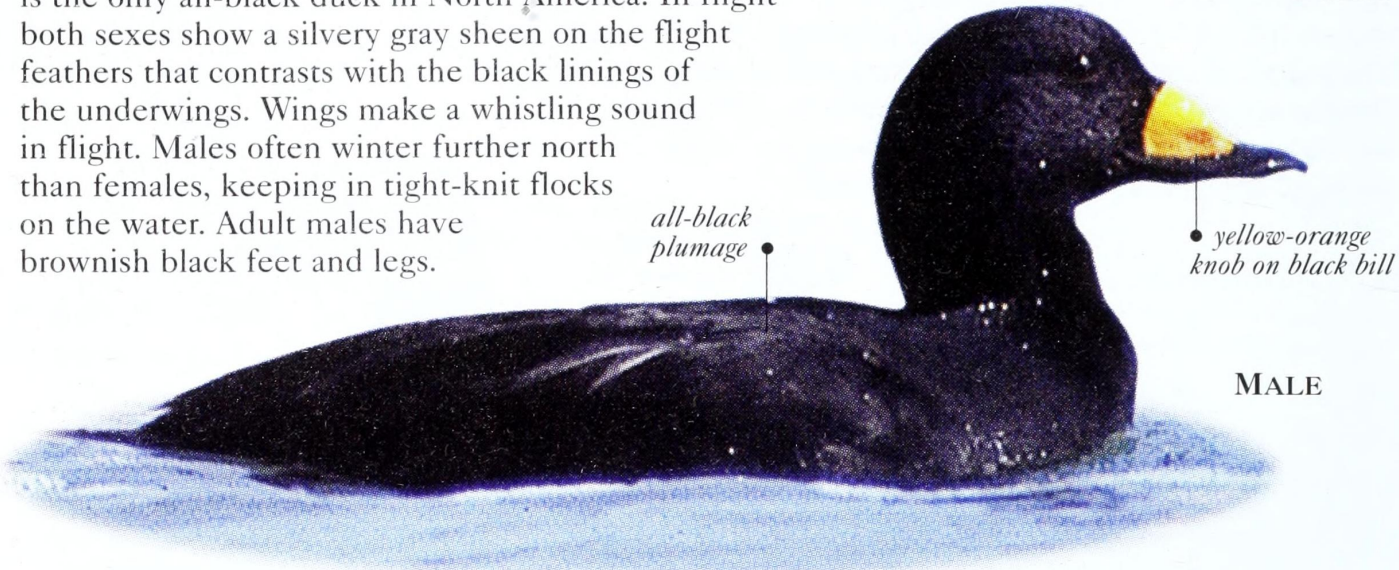
Plumage Sexes differ	Habitat	Migration Migratory	Weight 3.9 pounds
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DATE _____ TIME _____ LOCATION _____

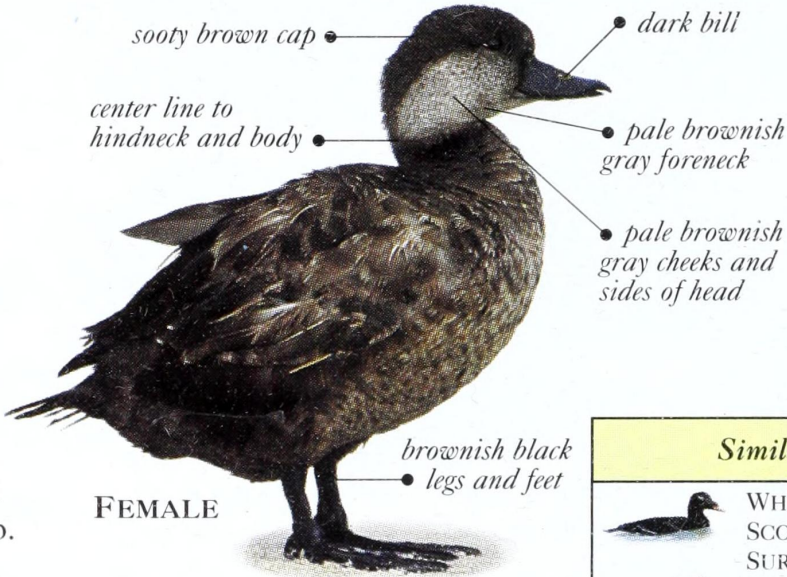
Family ANATIDAE	Species <i>Melanitta nigra</i>	Length 17–21 inches	Wingspan 30–35 inches
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BLACK SCOTER

One of the large sea ducks, most birds of this species are seen on wintering grounds along both coasts. The male is the only all-black duck in North America. In flight both sexes show a silvery gray sheen on the flight feathers that contrasts with the black linings of the underwings. Wings make a whistling sound in flight. Males often winter further north than females, keeping in tight-knit flocks on the water. Adult males have brownish black feet and legs.

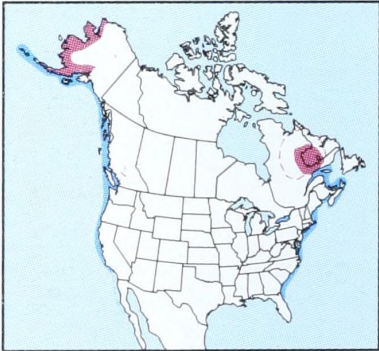


- **SONG** Usually silent. Male’s melancholy mellow *cour-loo* thought by some to be the most musical duck call. In courtship male whistles; female has abrasive *cour-loo*.
- **BEHAVIOR** Diving duck. Usually feeds in shallower more protected waters about 25 feet deep. Primary diet is mollusks.
- **BREEDING** Monogamous.
- **NESTING** Incubation 27–28 days by female. Precocial young; first flight at about 46 days. Female tends young but leaves after 7-21 days. 1 brood per year.



Similar Birds

- | | |
|--|--|
| | WHITE-WINGED SCOTER |
| | SURF SCOTER |
| | Both sexes show white patches on head in all plumages. |



Flight Pattern		
Strong direct flight with rapid wing beats. Flies in straight line and V formation.		

Nest Identification	
Shape	Location
Coarse grass • lined with feathers • on ground hidden in standing grass or under shrub • built by female • 5–8 buff to pink-buff eggs; elliptical to oval, 2.5 x 1.7 inches.	

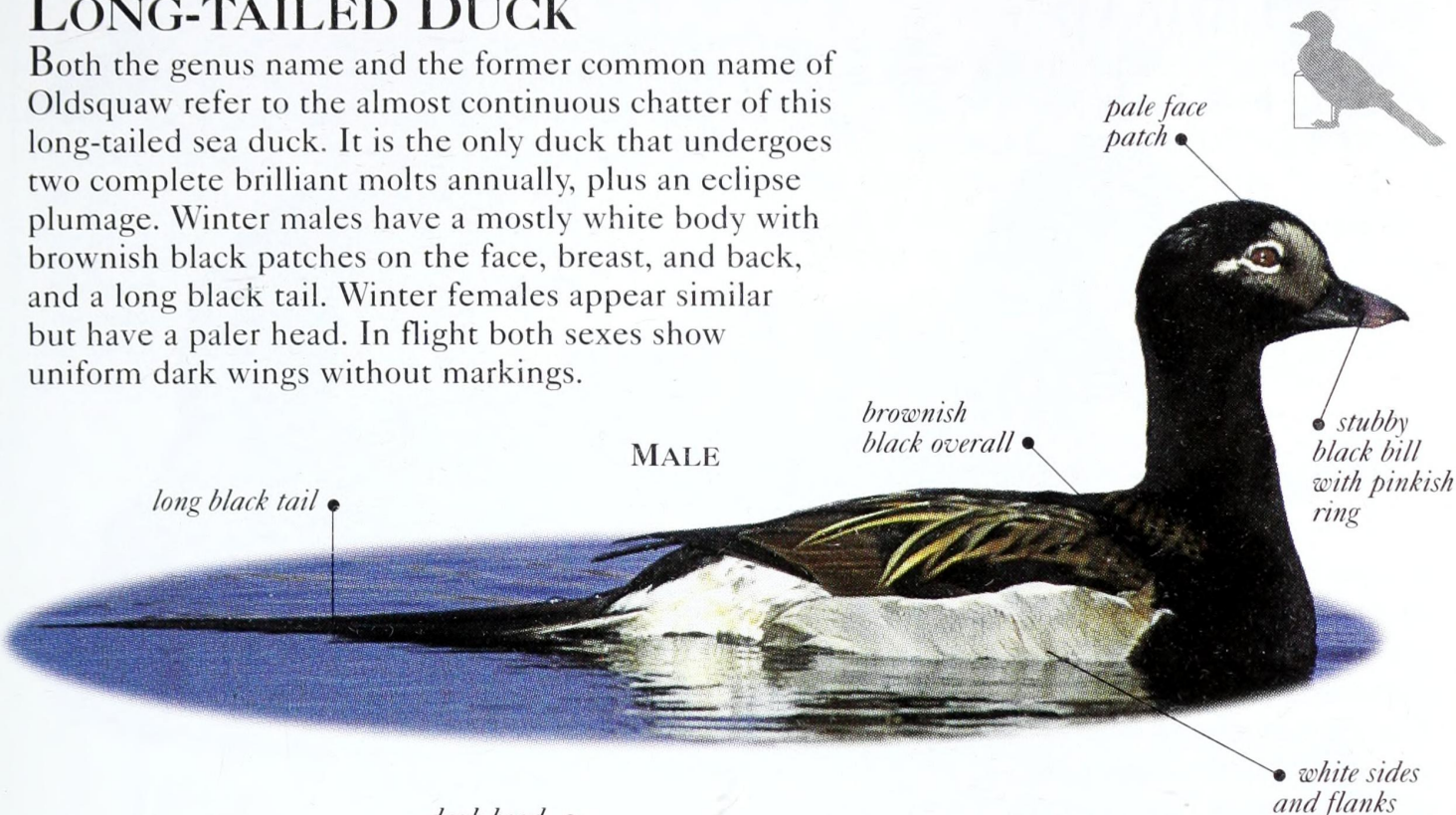
Plumage Sexes differ	Habitat	Migration Migratory	Weight 2.4 pounds
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DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Clangula hyemalis</i>	Length 15–22 inches	Wingspan 26–31 inches
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LONG-TAILED DUCK

Both the genus name and the former common name of Oldsquaw refer to the almost continuous chatter of this long-tailed sea duck. It is the only duck that undergoes two complete brilliant molts annually, plus an eclipse plumage. Winter males have a mostly white body with brownish black patches on the face, breast, and back, and a long black tail. Winter females appear similar but have a paler head. In flight both sexes show uniform dark wings without markings.



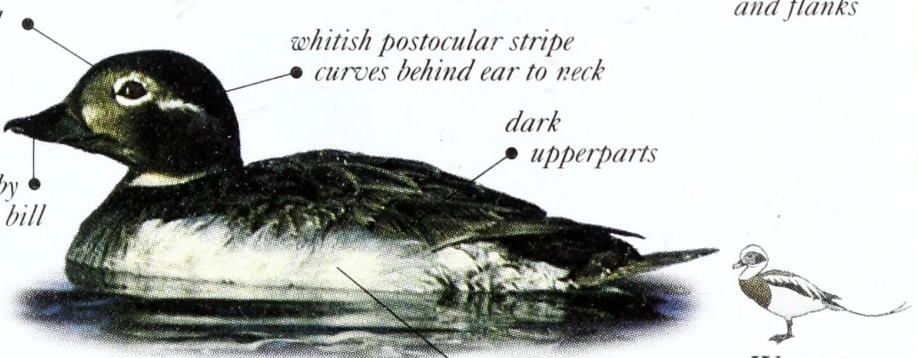
MALE

• **SONG** Melodious *ow-ow-owdle-ow* calls that may be heard for a mile. Noisy at all seasons.

• **BEHAVIOR** Gregarious. This duck dives frequently and has been caught in fishermen's nets at 200 feet. Breeds on freshwater pools in tundra, but winters on very large lakes and ocean. Often flies close to water in tight bunched flocks.

• **BREEDING** Monogamous.

• **NESTING** Incubation 24–29 days by female. Precocial young leave nest shortly after hatching. First flight at 35–40 days. Young tended by female and frequently by an extra female but find own food. 1 brood per year.



FEMALE

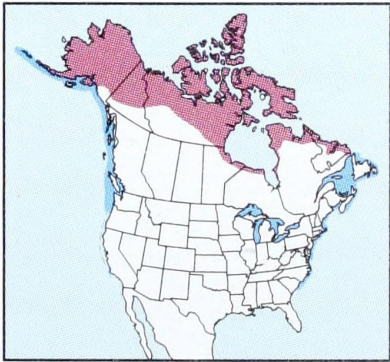
WINTER PLUMAGE

Similar Birds



NORTHERN PINTAIL ♂
Lacks face patches; greenish brown speculum; never pied.

- **POPULATION** Abundant; numbers in the millions.
- **CONSERVATION** Dense concentrations vulnerable to oil spills and other pollution of northern seas. Large numbers sometimes caught and drowned in fishing nets.



Flight Pattern



Swift direct flight often with erratic side-to-side turns of body.

Nest Identification

Shape  Location 

Lined with available plant material and large amount of down • on dry ground close to water, partially hidden under low vegetation or rocks • built by female • 5–11 olive-buff, greenish yellow, or olive-gray eggs; 2.1 inches long.

Plumage Sexes differ	Habitat 	Migration Migratory	Weight 2.1 pounds
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DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Bucephala albeola</i>	Length 13–16 inches	Wingspan 20–24 inches
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BUFFLEHEAD

The name of this large-headed duck, which means buffalo-headed or ox-headed, belies the Bufflehead’s agility in flying, swimming, and diving. It is the smallest diving duck, but it is one of the best divers. In flight the male’s pink legs and feet are bright against white underparts, and a white patch crosses the entire inner wing; female shows white in the secondaries only. These birds nest only in North America.

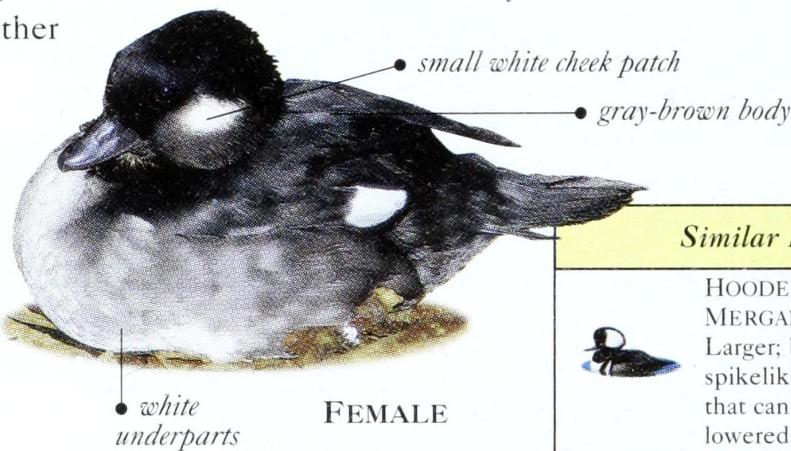
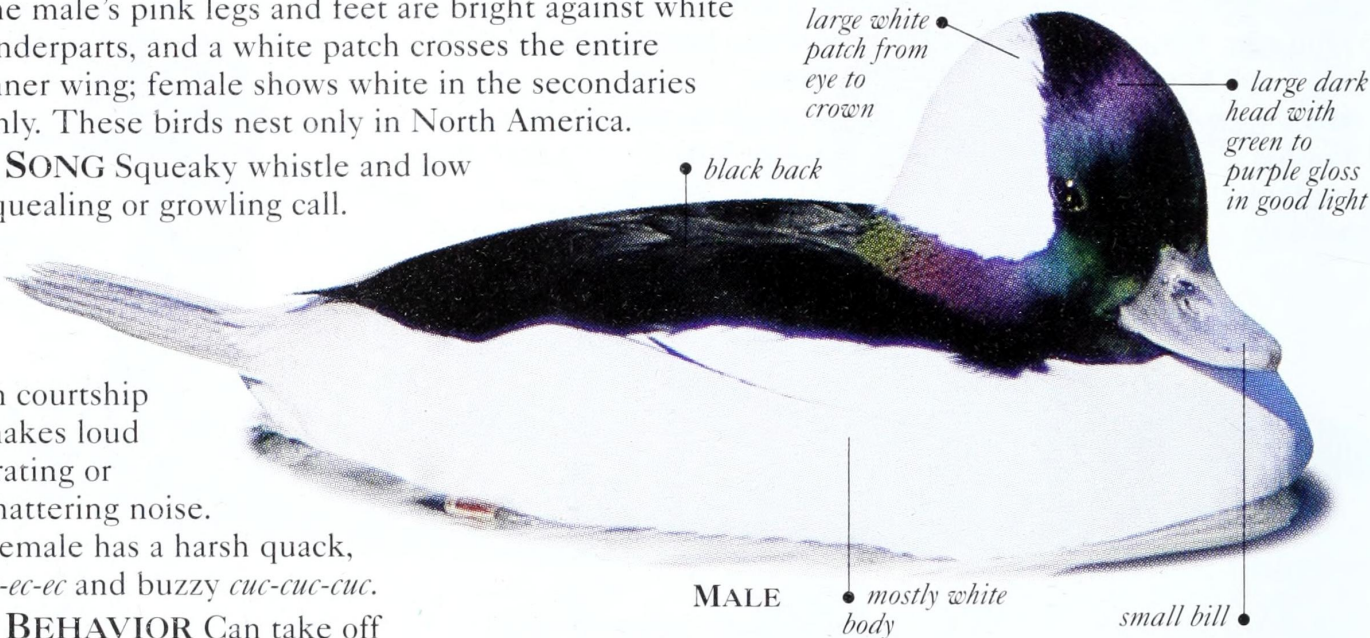
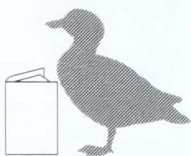
• **SONG** Squeaky whistle and low squealing or growling call.

In courtship makes loud grating or chattering noise. Female has a harsh quack, *ec-ec-ec* and buzzy *cuc-cuc-cuc*.

• **BEHAVIOR** Can take off directly from water unlike other diving ducks. Uses feet to swim underwater. Dives in groups for safety, leaving “lookouts” on surface. Eats aquatic insects, larvae, snails, small fish, and aquatic plant seeds. On saltwater eats shrimp and other crustaceans, shellfish, and snails. Male performs head-bobbing display in courtship.

• **BREEDING** Monogamous. Solitary nester.
• **NESTING** Incubation 28–33 days by female. Young leave nest by jumping out of tree cavity within 1 day of hatching. Tended by female. First flight at 50–55 days. 1 brood per year.

- **POPULATION** Common but has declined.
- **BIRDHOUSES** Will use nest boxes located near water.
- **CONSERVATION** Much less numerous now due to unrestricted shooting in the 20th century and loss of habitat.



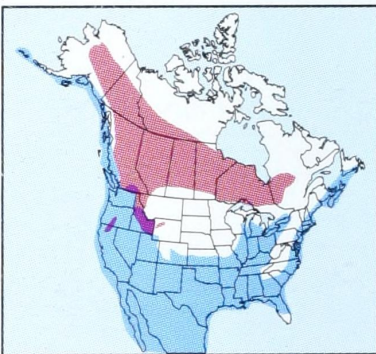
Similar Birds



HOODED MERGANSER ♂
Larger; brown sides; spikelike bill; large crest that can be fanned or lowered.



RUDDY DUCK ♂
Winter male resembles female Bufflehead
• longer bill and tail; large white cheek patch.



Flight Pattern

Swift direct flight with rapid wing beats.

Nest Identification

Shape Location

No material added to nest • will use wooden box placed in tree • 8–10 ivory-yellow, light olive-buff, or cream to pale buff eggs; elliptical to oval in shape, 2 x 1.5 inches.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 1.0 pound
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Family ANATIDAE

Species *Bucephala clangula*

Length 16–20 inches

Wingspan 25–32 inches

COMMON GOLDENEYE

In flight, on its whistling wings, the male shows more white plumage than any other North American duck except for the Common Merganser. Both sexes exhibit large white wing patches in flight. The small tight flocks often fly high.

- **SONG** During courtship male has grating zee-zeee or zee-zee-at, resembling call of Common Nighthawk. Female has abrasive low quack.



MALE

JUVENILE

Similar Birds

- ♂ **BARROW'S GOLDENEYE** Male has white crescent in front of eye; black head with purplish gloss; black of back extends farther down on sides; smaller white wing patch in flight
- ♀ female has more triangular head with more sloping forehead; longer bill with yellow only at tip.

- **BEHAVIOR** Male makes spectacular courtship display, throwing its head so that its neck contorts back to rump. Dives to 20 feet to forage for mollusks, crustaceans, insects, and aquatic plants.

- **BREEDING** Monogamous. Solitary nester.

- **NESTING** Incubation 28–32 days by female. Young may stay in nest 1–2 days. First flight at 56–62 days. Young tended by female but feed themselves. 1 brood per year.

- **POPULATION** Common. Presently stable.

- **BIRDHOUSES** Will utilize nest boxes.

Flight Pattern



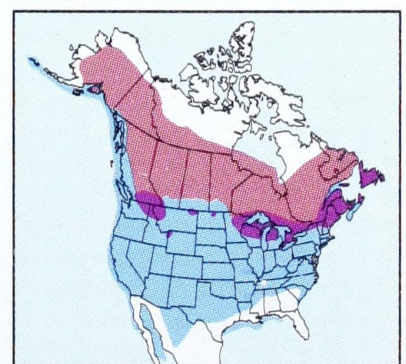
Swift direct flight with fast wing beats.

Nest Identification

Shape

Location

Lined with down • built by female • 5–19 clear pale green or gray-green eggs; elliptical to oval, 1 inch long.



Plumage Sexes differ

Habitat

Migration Migratory

Weight 2.2 pounds

DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Bucephala islandica</i>	Length 16–20 inches	Wingspan 30 inches
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BARROW'S GOLDENEYE

In summer this puffy-headed duck plays in mountain streams and rides currents in large rivers. In winter it generally is found on saltwater along the coasts. The forehead rises abruptly from a short triangular bill to a crown that appears flattened, and the nape is puffy. Female bill color varies with season and may be mostly dark with a yellow tip in the winter; the amount of yellow gradually increases to the point the bill may be entirely yellow or have dark



mottling at the base when breeding.

- **SONG** Makes low grating croaks. During courtship male utters kittenlike squeals and muted grunts.

- **BEHAVIOR** Flies close to surface of water for some time after the running takeoff typical of diving ducks. Not as gregarious as many other waterfowl. Relatively tame. In western mountains may nest as high as 10,000 feet above sea level.
- **BREEDING** Monogamous.

Flight Pattern

Swift direct flight; wings make whistling noise.

Nest Identification

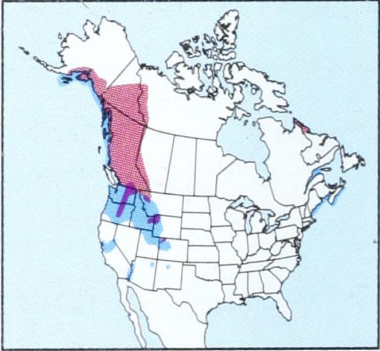
Shape

Location

- **NESTING** Incubation 28–34 days by female. Young stay in nest 1–2 days. First flight at 56 days. Young tended by female but find own food. 1 brood per year.
- **POPULATION** Uncommon to fairly common.

Similar Birds

COMMON GOLDENEYE
Male has large white spot on face, not crescent; more pointed head with greenish gloss; mostly white scapulars, not spotted
• female has longer, more slender bill with yellow restricted to tip; more gently sloped forehead.



Up to 50 feet off ground in large tree cavity, rock crevice, or abandoned building; also in burrow or on ground under bushes • built by female • 5–15 pale olive or blue-green eggs, 2.4 inches long.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 2.4 pounds
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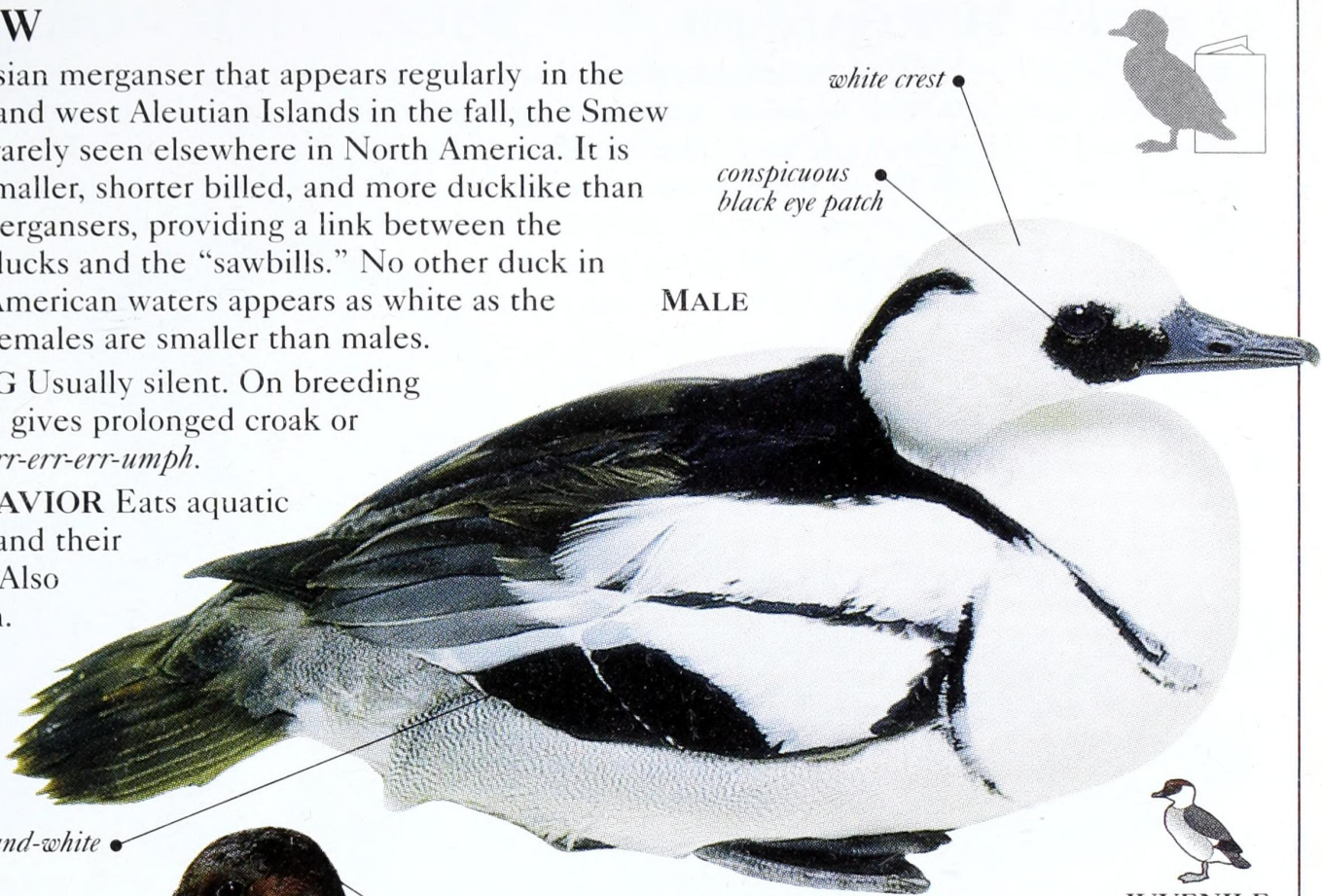
DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Mergellus albellus</i>	Length 14–16 inches	Wingspan 24–26 inches
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SMEW

A Eurasian merganser that appears regularly in the central and west Aleutian Islands in the fall, the Smew is only rarely seen elsewhere in North America. It is much smaller, shorter billed, and more ducklike than other mergansers, providing a link between the diving ducks and the “sawbills.” No other duck in North American waters appears as white as the male. Females are smaller than males.

- **SONG** Usually silent. On breeding grounds gives prolonged croak or grunt, *err-err-err-umph*.
- **BEHAVIOR** Eats aquatic insects and their larvae. Also eats fish.



MALE



JUVENILE

- **BREEDING** Monogamous. Found in forests during breeding season nesting in hollows of trees on wooded banks of rivers and lakes and in swampy river valleys.
- **NESTING** Incubation 28 days by female.

Similar Birds	
♂	LONG-TAILED DUCK Male has brown patches on face; brown breast; long spiked black tail •
♀	female has brownish back • winter birds appear mostly white on water.
HOODED, COMMON, AND RED-BREADED MERGANSERS ♀ Larger; ragged crests.	

Flight Pattern		
Swift direct flight with rapid wing beats. Flies in V or straight line formation.		

Precocial young leave nest within 1–2 days of hatching. First flight at 65–70 days. Young are tended by female. 1 brood per year.

- **POPULATION** Accidental to casual.



Nest Identification	
Shape	Location

Usually placed in hollow of tree near water and lined with down feathers plucked from the body of the female • 6–9 cream eggs, 2 x 1.5 inches long.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 1.4 pounds
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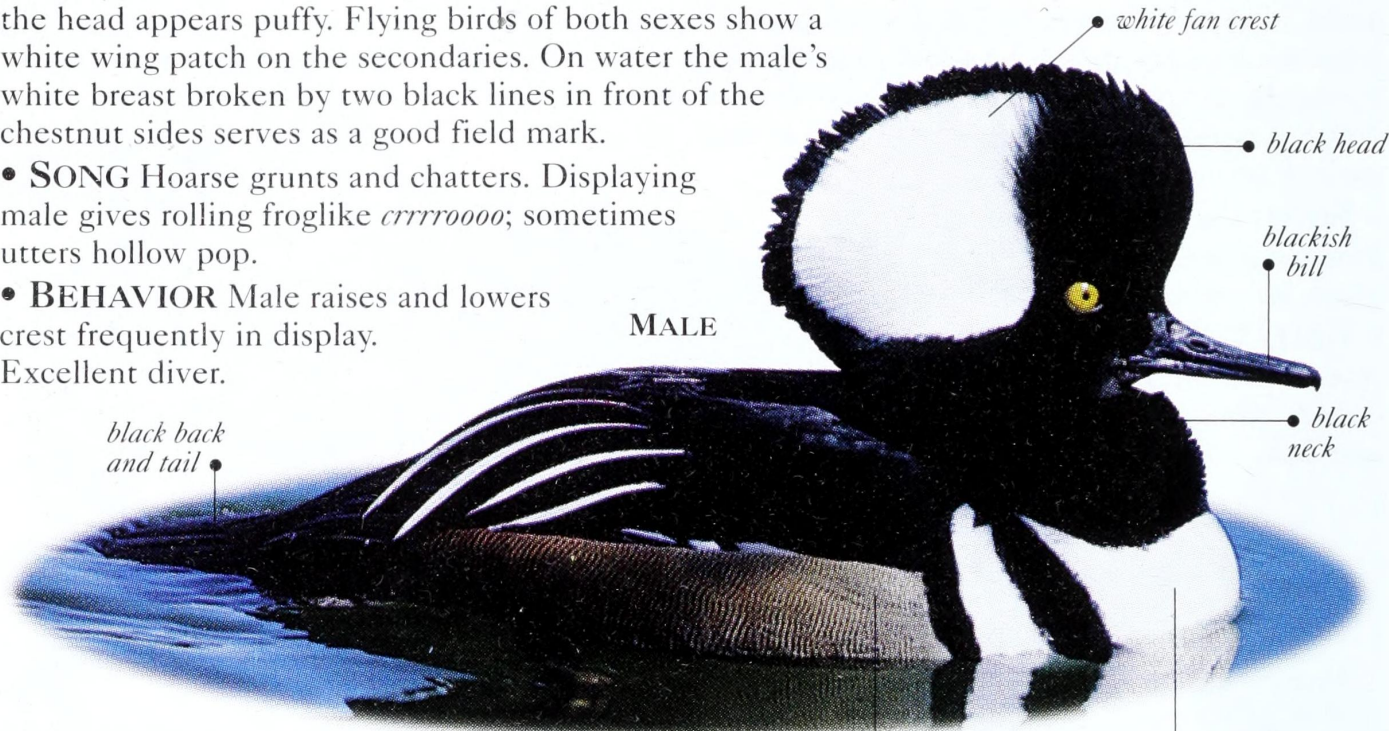
DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Lophodytes cucullatus</i>	Length 16–19 inches	Wingspan 24–26 inches
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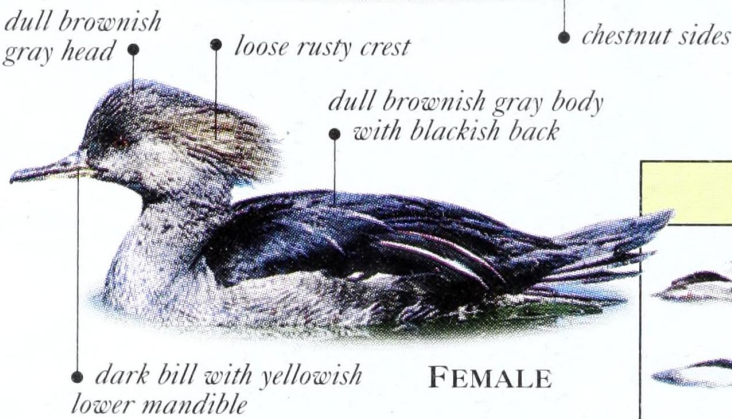
HOODED MERGANSER

The smallest native North American merganser has the largest crest. The male’s crest is a vertical white fan bordered with black that can be raised and lowered during display. When the crest is folded, the head appears puffy. Flying birds of both sexes show a white wing patch on the secondaries. On water the male’s white breast broken by two black lines in front of the chestnut sides serves as a good field mark.

- **SONG** Hoarse grunts and chatters. Displaying male gives rolling froglike *crrrrroooo*; sometimes utters hollow pop.
- **BEHAVIOR** Male raises and lowers crest frequently in display. Excellent diver.



Uses both wings and feet to swim swiftly underwater. Thin, serrated bill is adapted for taking fish, but also feeds on crustaceans, aquatic insects, other animals, and plants. Flies quickly into the air off water.



- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 26–41 days by female. Young leave nest within 24 hours of hatching. First flight at about 71 days.

Flight Pattern

Rapid direct flight with fast wing beats. Flies silently and swiftly.

Nest Identification

Shape

Location

Young tended by female but find own food. 1 brood per year.

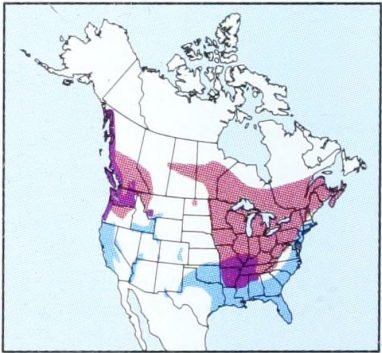
- **POPULATION** After past decline, now increasing because of nest boxes, including those intended for Wood Ducks.
- **BIRDHOUSES** Will nest in artificial boxes.

Similar Birds

RED-BREASTED MERGANSER ♂

COMMON MERGANSER ♂
Red bill; paler and grayer; larger.

BUFFLEHEAD ♂
Lacks chestnut sides.



Wood chips with debris in bottom • 15–20 feet off ground • built by female • 6–18 white eggs, almost spherical; 2.1 inches long.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 1.5 pounds
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DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Mergus merganser</i>	Length 22–27 inches	Wingspan 31–37 inches
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COMMON MERGANSER

The Common Merganser is the largest merganser in North America. The male’s mostly white body, dark head, and red bill easily distinguish it from the other mergansers at a distances or in flight. This is the only merganser in North America in which the female is crested and the male is not.

- **SONG** Male makes harsh croaks; female makes loud harsh *karr karr*.
- **BEHAVIOR** Expert diver pursues small fish under water. Also feeds on mollusks,

crustaceans, aquatic insects, and some plants. In winter often stays as far north as open water will allow. Patters across water or land to build up speed for takeoff. Often flies low following stream courses.

- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 28–35 days by female. Young remain in nest 1 day or more. First flight at 65–70 days. Young tended by female but find own food. 1 brood per year.
- **POPULATION** Fairly common. Stable in US; may be increasing in Europe.

Flight Pattern



Direct flight with rapid wing beats and bill, head, body, and tail held in straight line.

Nest Identification

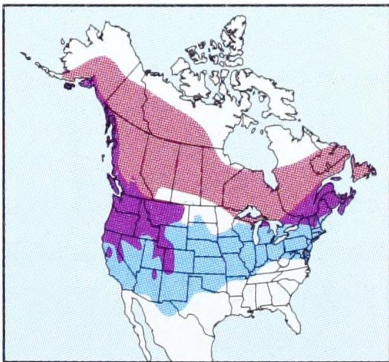
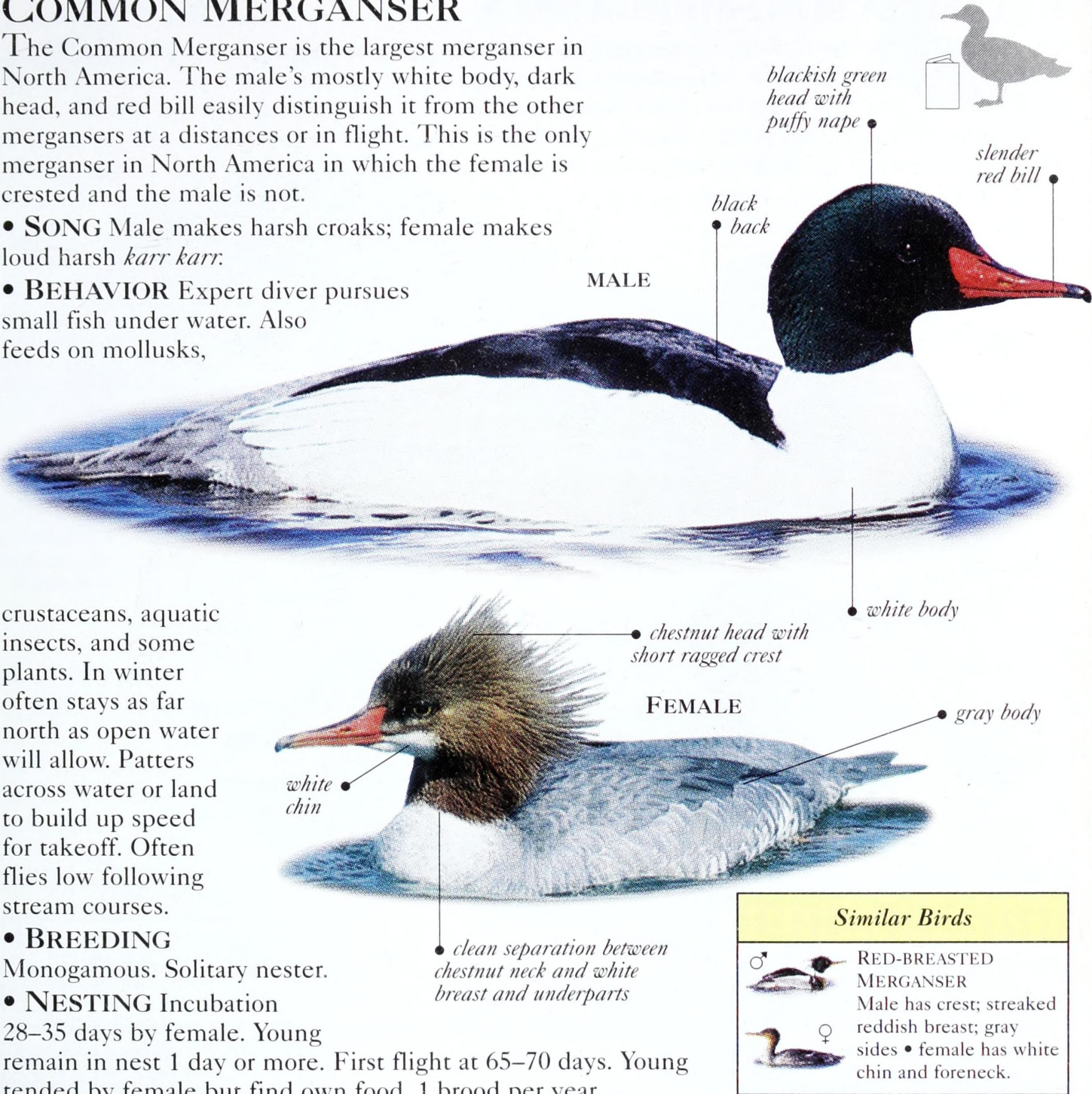
Shape  Abandoned nests

Location 

Wood chips or debris • lined with down, weeds, grasses, and rootlets • near water in large tree cavity or in rock crevices or holes • built by female • 6–17 light buff or ivory-yellow eggs, 2.6 inches in diameter.

Plumage Sexes differ	Habitat 	Migration Migratory	Weight 3.8 pounds
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DATE _____ TIME _____ LOCATION _____

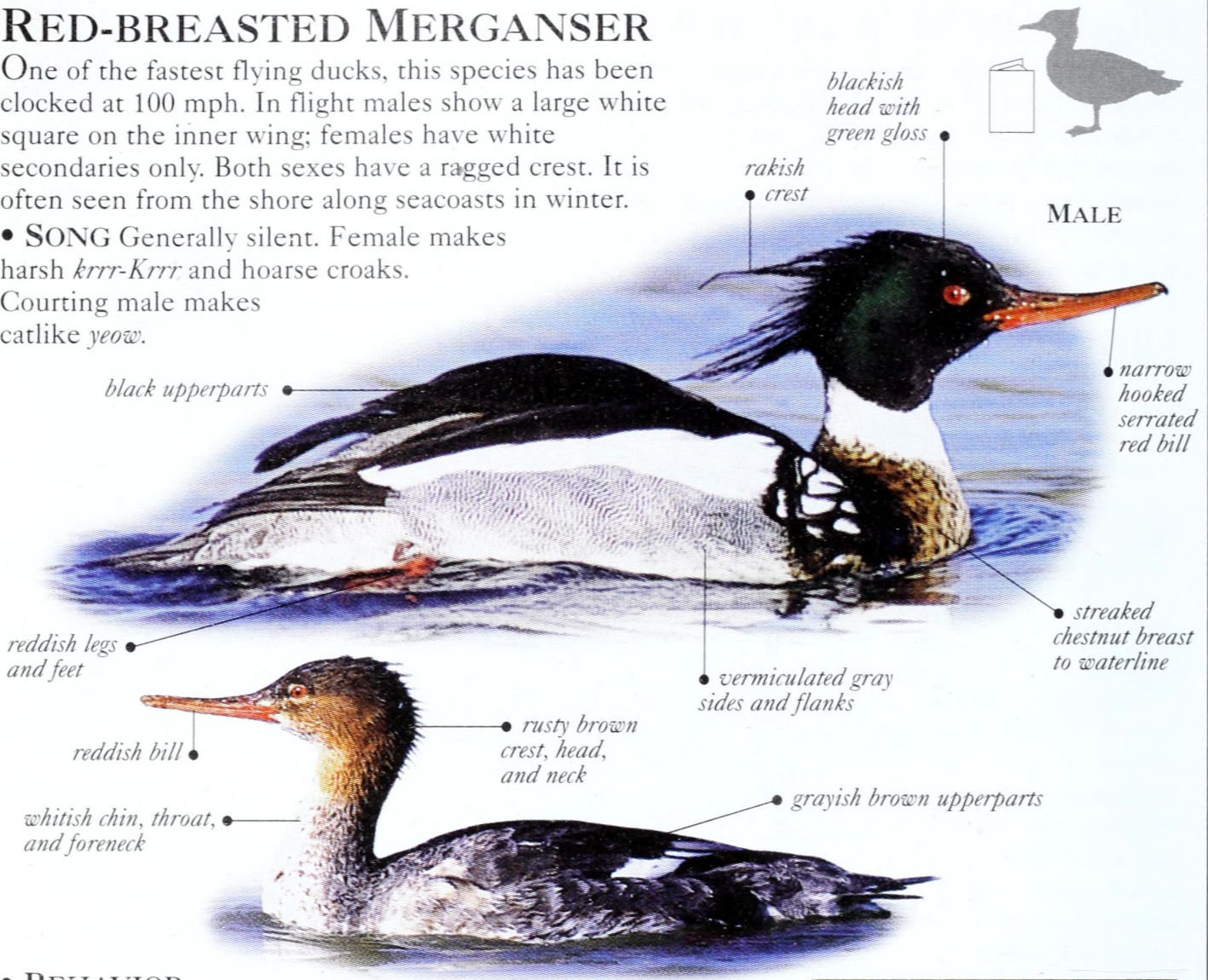


Family ANATIDAE	Species <i>Mergus serrator</i>	Length 16–26 inches	Wingspan 31–35 inches
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RED-BREASTED MERGANSER

One of the fastest flying ducks, this species has been clocked at 100 mph. In flight males show a large white square on the inner wing; females have white secondaries only. Both sexes have a ragged crest. It is often seen from the shore along seacoasts in winter.

- **SONG** Generally silent. Female makes harsh *krrr-Krrr* and hoarse croaks. Courting male makes catlike *yeow*.



• **BEHAVIOR**

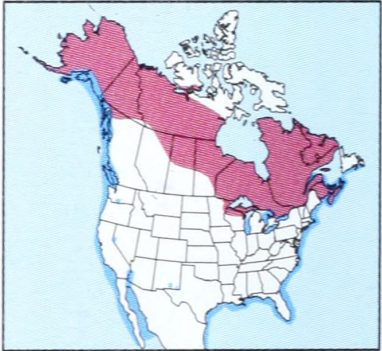
Swift on the wing. To take off, runs with wings flapping across either water or land. Dives to forage for animal food. Principal diet is fish. Mergansers sometimes form a line to drive fish into shallower water to catch them.

- **BREEDING** Monogamous.

- **NESTING** Incubation 29–35 days by female. Young leave nest within 1 day of hatching. First flight after 59 days. Young tended by female but find own food. 1 brood per year.

- **POPULATION** Widespread and common. Coastal wintering habitat vulnerable to pollution and oil spills.

Similar Birds	
	COMMON MERGANSER Male has white underparts and breast; lacks crest
	• female has clean-cut line between rusty neck and white breast.



Flight Pattern	
	
Fast direct flight with rapid wing beats.	

Nest Identification	
Shape 	Location 

Lined with down • on ground in sheltered spot; sometimes in hollow stump, under rocks, or in shallow burrow • built by female • sometimes eggs laid in nests of Mallard, Gadwall, or Lesser Scaup • 5–16 olive-buff or green-buff eggs, 2.5 inches long.

Plumage Sexes differ	Habitat 	Migration Migratory	Weight 2.5 pounds
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DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Nomonyx dominicus</i>	Length 12–14 inches	Wingspan 20 inches
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MASKED DUCK

A small, tropical duck that rarely wanders to, and even more rarely nests in, the southern United States. The Masked Duck is usually found in densely vegetated, warm freshwater pools and marshes. This is one of the “stiff-tailed” ducks closely related to the common and widespread Ruddy Duck. Both sexes show large white patches on the inner wing in flight.

• **SONG** Courtship calls of *coo-coo-coo*, *ooo-ooo-ooo*, *du-du-du*, *kirroo-kirroo*. When alarmed male makes loud *kuri-kuroo*, often repeated. Female makes henlike clucking and hissing noises.

MALE

long spiked blackish tail

black face, forehead, and crown

bluish bill

rich cinnamon-brown body with black mottling

• **BEHAVIOR**

A shy and somewhat secretive duck that hides in the dense vegetation in water. Dives for food; diet consists primarily of aquatic plants, some insects, and crustaceans. Can sink slowly into the water. Takeoffs from water are often accomplished by first diving beneath the surface and bursting up in flight from below. As with other “stiff tails” often holds long stiff tail fanned on water or wrenlike over back.

• **BREEDING** Monogamous.

• **NESTING** Incubation 28 days by female. Young tended by female but probably find own food. 1 brood per year.

• **POPULATION** Casual to rare; local. Does not seem to have large populations anywhere. Infrequent and local nesting in coastal Texas and Louisiana.

Flight Pattern



Direct flight, often close to water, with fast wing beats.

Nest Identification

Shape 

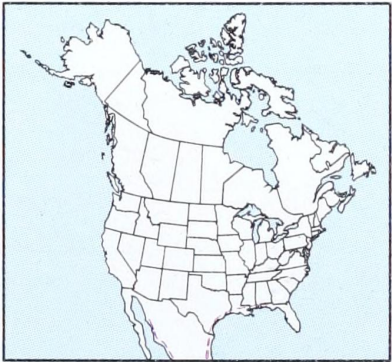
Location 

Roofed over, basketball-like • made of reeds and grasses • sparsely lined with down • among marsh vegetation in shallow water or near water • built by female • 4–10 white or buff eggs; subelliptical, 2.5 inches long.

Similar Birds

 **RUDDY DUCK**
Male has blackish cap; white cheeks • female has single dark stripe on cheek • both sexes lack white inner wing patch.





brown bill

whitish brown face with blackish brown lines across cheek

brown body with buff mottling

brown neck

FEMALE



WINTER MALE

Plumage Sexes differ	Habitat 	Migration Nonmigratory	Weight 12.8 ounces
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DATE _____ TIME _____ LOCATION _____

Family ANATIDAE	Species <i>Oxyura jamaicensis</i>	Length 14–16 inches	Wingspan 21–24 inches
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RUDDY DUCK

This big-headed chunky duck has a long stiff tail that is often cocked and fanned forward. Wings are uniform in color. In winter males become gray-brown with a gray bill. In breeding season found in pairs or small loose groups on freshwater lakes and ponds. After nesting, may occur in large flocks; in winter it can be found on salt bays.

• **SONG** Usually silent. In courtship male utters continual *chuck-chuck-chuck-churrr*.

• **BEHAVIOR** Diving duck that can sink slowly beneath the surface like a grebe. When disturbed often swims away underwater instead of flying away. Gray legs and feet are placed so far beneath the body that it cannot walk upright. Primary diet of vegetable materials. Relatively tame.

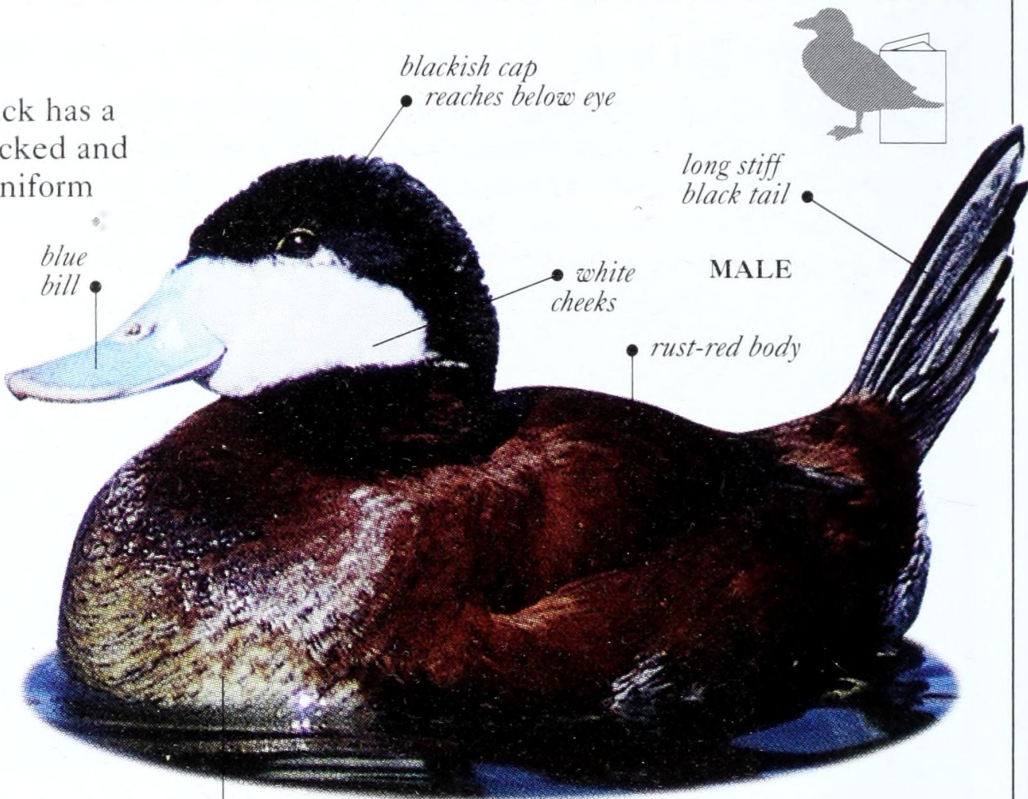
• **BREEDING** Monogamous.

• **NESTING** Incubation 23–26 days by female. Young leave nest within a day of hatching. First flight at 42–48 days. Young tended by female but feed themselves. 1 brood per year, sometimes 2 in the South.

• **POPULATION** Fairly common to common. Current levels are lower than in the past.

• **CONSERVATION**

Reasons for decline unknown, but this bird is very tame and easily killed by hunters. Shallow-water nesting areas are subject to draining for agriculture and droughts.



whitish belly with light brown barring



WINTER PLUMAGE

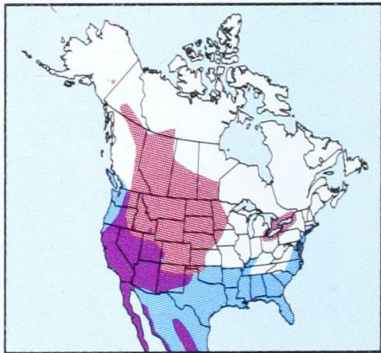
Similar Birds



MASKED DUCK
Male lacks white cheek
• female has 2 dark lines across face
• population very local.



CINNAMON TEAL
Lacks stiff tail and white cheeks; large pale blue forewing patch in flight
• female lacks line through face.



Flight Pattern	
Jerky direct flight with rapid wing beats.	

Nest Identification	
Shape	Location

Grasses and cattails • lined with down • in dense marsh vegetation over shallow water • sometimes uses abandoned nests • built by female • 5–17 creamy white or nest-stained eggs, 2.5 inches long • eggs huge compared to body size and similar in size to those laid by much larger ducks.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 1.3 pounds
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DATE _____ TIME _____ LOCATION _____

Family ACCIPITRIDAE	Species <i>Pandion haliaetus</i>	Length 21–24 inches	Wingspan 54–72 inches
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OSPREY

A kindred of other diurnal birds of prey, the Osprey is so distinctive it is sometimes placed in its own family. Its large size and uniquely curved claws allow the Osprey to carry a large fish a considerable distance to feed to its young in the nest. Occasionally an eagle dives upon an Osprey carrying a fish, forces a release, and catches the fish for itself before the fish hits the water.

• **SONG** Series of loud whistled *kyew*s or melodious whistle of *chewk-chewk-chewk* or *cheap-cheap-cheap*.

• **BEHAVIOR** Eats mainly fish. Dives into water to catch prey from 30–100 feet above surface. Holds fish with both feet, stops to shake water out of feathers, points fish head forward to decrease wind resistance, and carries to perch or to feed young. Often flies with distinctive crook or kink in wing bent at wrist, which has a black patch.

• **BREEDING** Monogamous. Colonial or solitary nester.

• **NESTING** Incubation 32–43 days by both sexes; however, female does more, while male brings food. Young stay in nest 48–59 days. Fed by both parents. 1 brood per year.

• **POPULATION** Uncommon inland; fairly common in coastal range.

• **BIRDHOUSES** Osprey will build nest on man-made cartwheel on pole or on platforms built in marshes.

• CONSERVATION

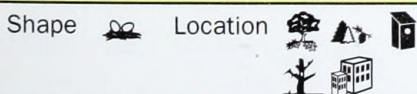
Endangered in 1950s because of chemical pollution (especially DDT), but has since made a comeback, at least partly by transplanting young into areas where entire populations had been extirpated.

Flight Pattern



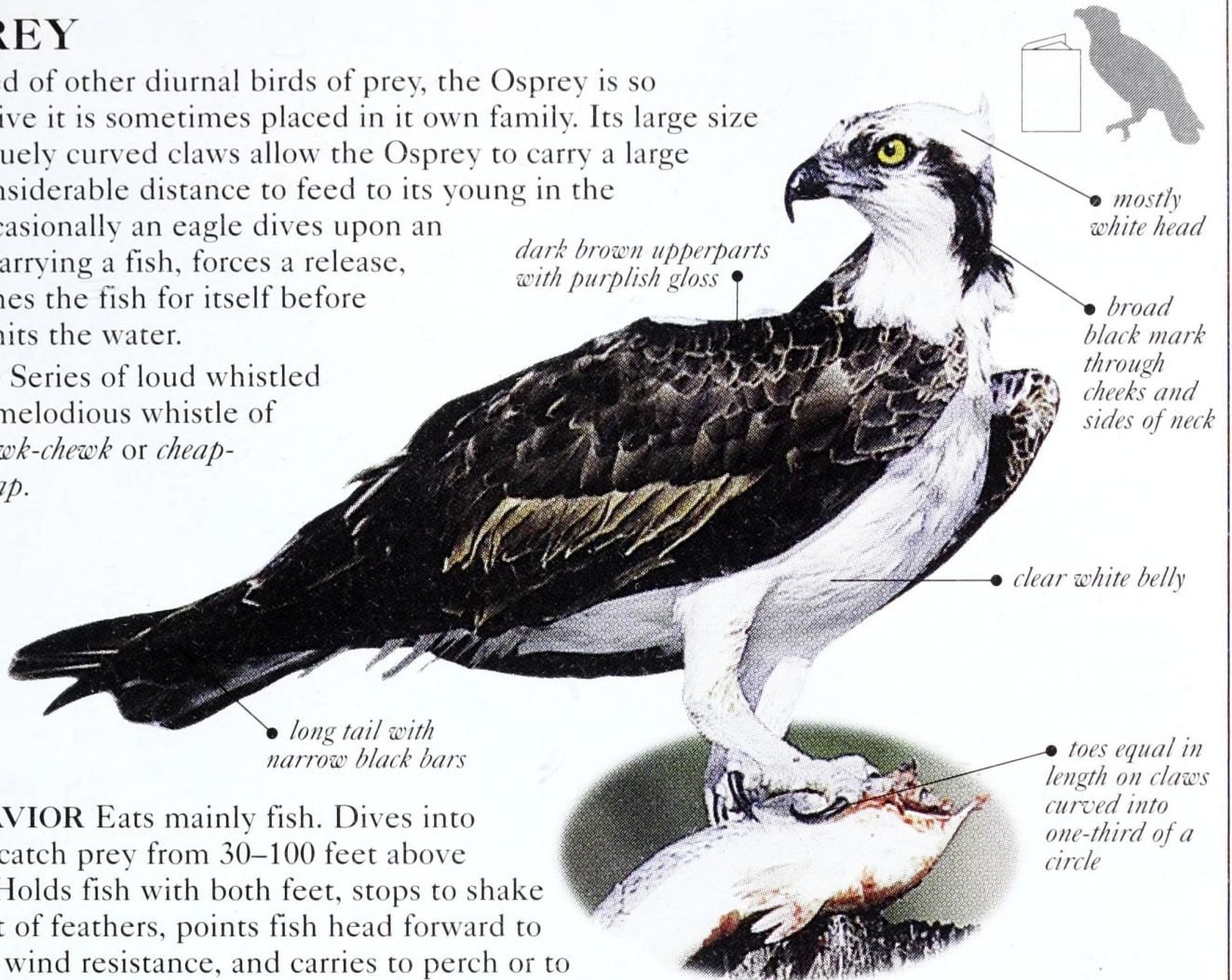
Deep, slow wing beats alternate with glides; sometimes soars on thermals.

Nest Identification



Sticks, sod, cow dung, seaweed, rubbish, and similar material • up to 200 feet above ground in dead or live trees near or over water, or atop telephone poles or bridges • built by both sexes • Usually 3 white or pinkish eggs marked with brown and olive, 2.4 x 1 inches long.

Plumage Sexes similar	Habitat 	Migration Migratory	Weight 3.1 pounds
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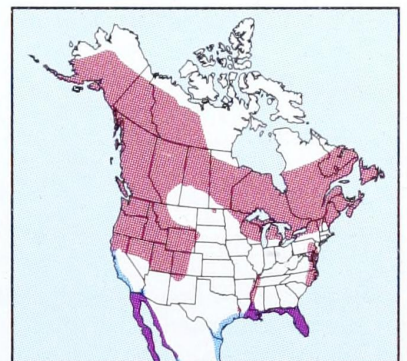


JUVENILE

Similar Birds



BALD EAGLE
Entirely white head and tail; crown held flat; dark underparts and underwings • juvenile has entirely dark head and patchy tannish white underwings.

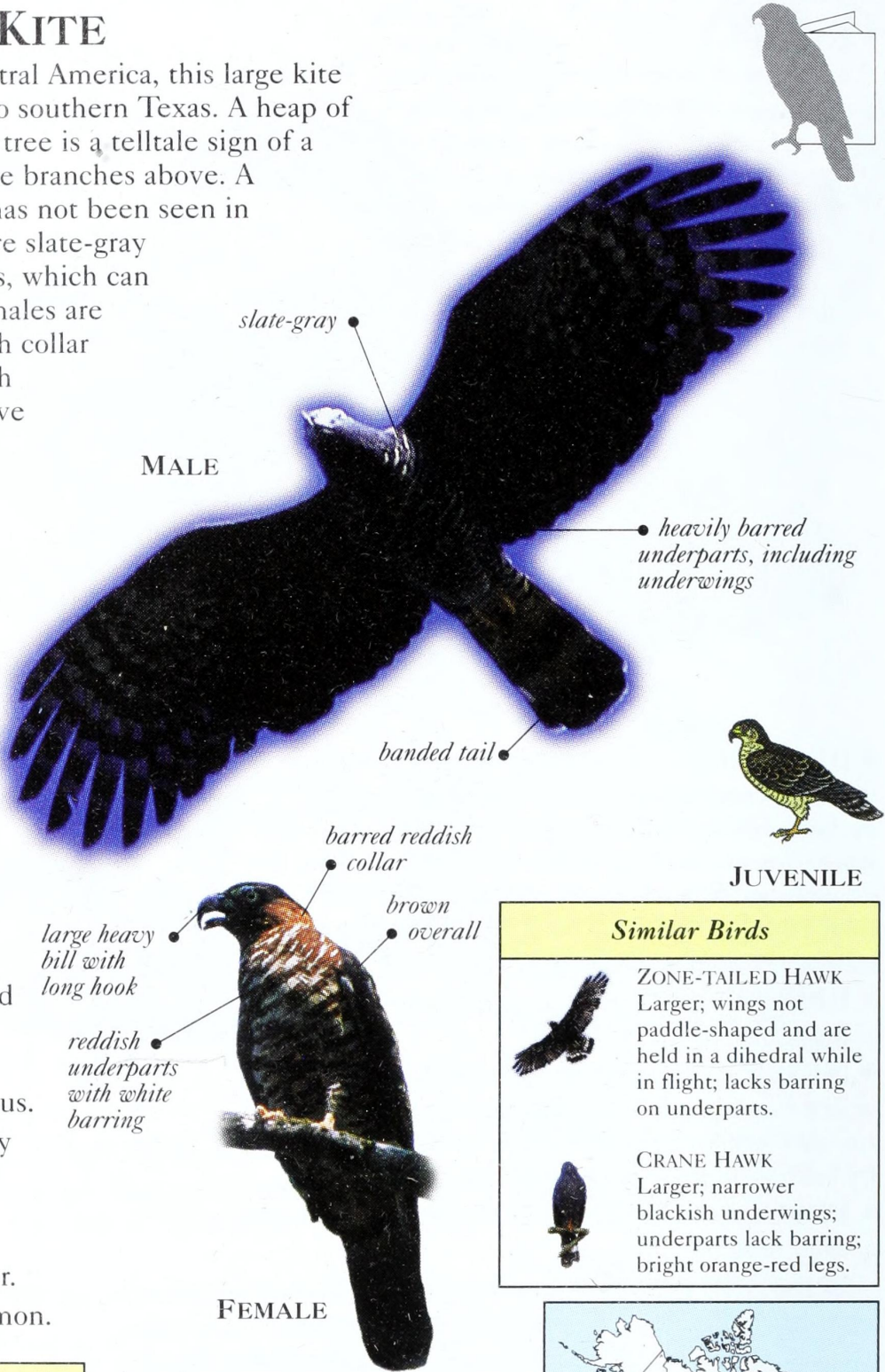


Family ACCIPITRIDAE	Species <i>Chondrohierax uncinatus</i>	Length 16 inches	Wingspan 34–37 inches
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HOOK-BILLED KITE

A native of South and Central America, this large kite sometimes makes its way to southern Texas. A heap of broken snail shells under a tree is a telltale sign of a nest or habitual perch in the branches above. A black morph exists, but it has not been seen in the United States. Males are slate-gray overall and have white eyes, which can be seen at close range. Females are brown with a barred reddish collar and reddish underparts with white barring. Juveniles have whitish underparts with brown barring, a white collar, and brown eyes.

- **SONG** Gives a musical, oriole-like 2–3 note whistle. Screams and chatters when disturbed, *weh keh-eh-eh-eh-eh-eh-eh*.
- **BEHAVIOR** Diet consists primarily of various types of snails, but it also eats frogs, salamanders, and insects. Its flight is distinctively floppy and loose, and the bird holds its paddle-shaped wings slightly raised and pushed forward.
- **BREEDING** Monogamous.
- **NESTING** Incubation by both sexes. Semialtricial young remain in nest 35–45 days and are fed by both sexes. 1 brood per year.
- **POPULATION** Uncommon.



Similar Birds



ZONE-TAILED HAWK
Larger; wings not paddle-shaped and are held in a dihedral while in flight; lacks barring on underparts.



CRANE HAWK
Larger; narrower blackish underwings; underparts lack barring; bright orange-red legs.



Found in the US only in the lower Rio Grande Valley of southeastern Texas.

- **CONSERVATION** Some decline in the tropics; West Indies population endangered.

Flight Pattern	
Distinctly loose floppy flight. Soars on thermals and updrafts.	
Nest Identification	
Shape	Location

Dead twigs • built by both sexes • 2–3 buff-white eggs marked with reddish brown, 1.8 inches long.

Plumage Sexes differ	Habitat	Migration Nonmigratory	Weight 9.8 ounces
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DATE _____ TIME _____ LOCATION _____

Family ACCIPITRIDAE	Species <i>Elanoides forficatus</i>	Length 19–25 inches	Wingspan 45–50 inches
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SWALLOW-TAILED KITE

Flying swiftly with its wings cleaving the air and its forked tail opening and closing like scissors, the Swallow-tailed Kite is a breathtaking sight. The largest of the North American kites, this bird resembles a huge Barn Swallow. The black upperparts contrast sharply with the white head and underparts. Never taking time to hover, it will drop down to skim the surface of water to bathe or drink and then swoop suddenly up over the treetops. A tropical species that in North America is normally found only in the southeast in the spring and summer, during spring migration individuals may “overshoot” and appear as far north as New England.

- **SONG** Utters shrill *ee-ee-ee* or *pee-pee-pee*. When several fly together they make sweet shrill cries of *peat, peat, peat; klee, klee, klee*; or soft whistles.
- **BEHAVIOR** Forms flocks in winter or migration. Catches and eats food while flying. Feeds on insects such as bees, dragonflies, crickets, cicadas, and beetles. Also consumes small snakes, lizards, frogs, and small birds, which often are taken from the treetops.
- **BREEDING** Monogamous. Forms loose colonies.
- **NESTING** Incubation 24–28 days by both sexes, but mostly by female. Semialtricial young stay in nest 36–42 days. Fed by both sexes.

Flight Pattern

Buoyant flight with deep slow wing beats and glides; a master at soring on thermals and updrafts.

Nest Identification

Shape

Location

Probably only 1 brood per year.

- **POPULATION** Common.
- **CONSERVATION** Listed as endangered in South Carolina. Disappeared from many areas in early 20th century. Population now apparently stable and slowly expanding range.

Sticks, twigs, moss, and pine needles • lined with leaves and lichen • usually in treetop, 60–130 feet above ground, concealed by thick foliage • built by both sexes • 2–3 white or creamy white eggs marked with brown, sometimes lavender, often concentrated at end; elliptical to short subelliptical, 1.8 x 1.25 inches long.



• long pointed wings below with black flight feathers and white wing linings

• snow-white underparts

15–16-inch-long black tail with deep fork

• snow-white head and hind neck

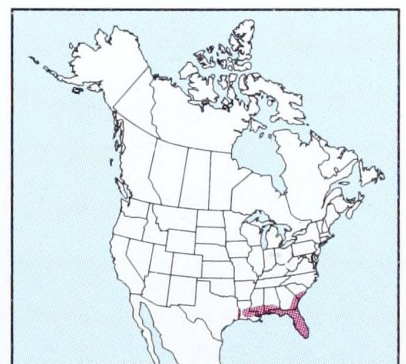
• black bill

• dark brown to red eyes

Similar Birds



MISSISSIPPI KITE
Slightly notched black tail; gray underparts and head.



Plumage Sexes similar	Habitat	Migration Migratory	Weight 15.6 ounces
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DATE _____ TIME _____ LOCATION _____

Family	ACCIPITRIDAE	Species	<i>Elanus leucurus</i>	Length	15–17 inches	Wingspan	40–42 inches
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WHITE-TAILED KITE

Sometimes called the white hawk, the White-tailed Kite soars and glides like a small gull. When seen from a distance, this gregarious bird appears completely white. Previously called the Black-shouldered Kite, the white linings of the underwing are broken distally by a black “thumb” mark on the wrist. It is the only North American kite to hover while hunting, with tail down and often with legs dangling, over savanna, riparian woodland, marshes, grassy foothills, or the cultivated fields it searches for food. It is a master at soaring on thermals and glides long distances after reaching considerable heights. Juveniles’ underparts and head are lightly streaked with rufous.

- **SONG** Brief whistled *keep, keep, keep*.
- **BEHAVIOR** Active hunter. Pauses to hover and study ground before swooping on prey. Eats voles, field mice, pocket gophers, ground squirrels, shrews, small birds, small snakes, lizards, frogs, grasshoppers, crickets, and beetles. Often roosts communally.
- **BREEDING** Monogamous. Nests built close together, sometimes in loose colonies.
- **NESTING** Incubation 30 days by female. Young stay in nest 35–40 days. Fed by both sexes. Male hunts for food and drives away crows and other hawks. Up to 2 broods per year.



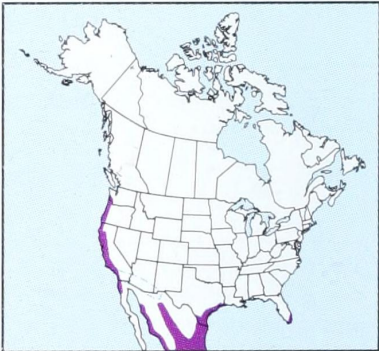
JUVENILE



Similar Birds



MISSISSIPPI KITE
Lacks black shoulders and black “thumb” mark under wing; has black tail.



Flight Pattern



Hunts by flying slowly, gracefully, gull-like, with slow measured deep wing beats. Soars on thermals and updrafts.

Nest Identification

Shape 

Location 

- **POPULATION** Common but local. Expanded in last half of 20th century.
- **CONSERVATION** Some concern about the spraying of pesticides and insecticides in open environments frequented by this species.

Sticks and twigs • lined with grasses, dry stubble, weed stems, and rootlets • in oaks, cottonwood, or eucalyptus, about 15–60 feet above ground • built by both sexes • 3–6 white eggs, heavily blotched with rich brown; ovate to oval, 1.7 x 1.3 inches long.

Plumage	Sexes similar	Habitat	  	Migration	Nonmigratory	Weight	Undetermined
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DATE _____ TIME _____ LOCATION _____

Family ACCIPITRIDAE	Species <i>Rostrhamus sociabilis</i>	Length 16–18 inches	Wingspan 45 inches
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SNAIL KITE

Also known as the Everglades Kite, this resident of subtropical freshwater marshes has one of the most specialized diets of all birds. It eats only snails of the genus *Pomacea*, also called the green or apple snail, which lays its tiny white eggs on plant stems a few inches above water. This gregarious bird flies slowly up to 30 feet above the marshes while hunting, always keeping its bill pointed downward in search of freshwater snails. In flight the white tail with broad dark tip is easily seen. The juvenile looks like the female but is heavily streaked below.

- **SONG** Greeting call is grating *kor-ee-ee-a, koree-a*. If disturbed at nest, alarm call is cackling notes resembling those of Osprey.
- **BEHAVIOR** Glides slow and low over marsh, dropping to pick up snail with one foot; flies to perch and uses bill to extract snail from shell. Roosts communally on low bushes often over water.
- **BREEDING** When courting, flies high and then dives repeatedly in short sudden dips with wings folded. Loose colonies or solitary nester.
- **NESTING** Incubation 26–30 days by both sexes. Semialtricial young stay in nest 23–28 days, tended by one parent or the other. 1 brood per year; often 2 when food abundant.
- **POPULATION** Rare to uncommon. Local.

• **CONSERVATION** Florida population endangered. Droughts and man-made canals have drained marshes, reducing snail population. Widespread in tropics, but vulnerable to habitat loss.

Flight Pattern	
	
Flies on slow shallow wing beats interrupted by short glides.	
Nest Identification	
Shape 	Location  

Green or dry sticks and leafy twigs • 3–9 feet above ground in low tree or hammock of marsh grass • built by both sexes, but male does most of work • 2–4 white eggs, sometimes marked with brown; oblong, oval, or short subelliptical, 1.7 inches long.

Plumage Sexes differ	Habitat 	Migration Nonmigratory	Weight 13.3 ounces
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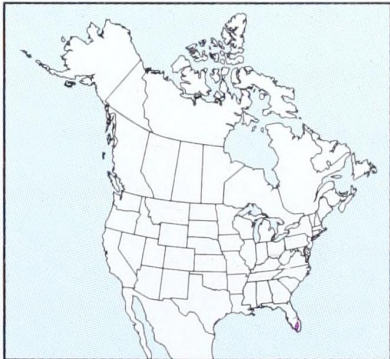
DATE

TIME

LOCATION



Similar Birds	
	NORTHERN HARRIER ♂ White patch on rump, not on tail; narrower pointed wings in flight, not paddle-shaped, and held above back in dihedral.



Family ACCIPITRIDAE	Species <i>Ictinia mississippiensis</i>	Length 13–17 inches	Wingspan 34–37 inches
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MISSISSIPPI KITE

Far from shy, the Mississippi Kite has been seen chasing bats into caves and flying around horseback riders and cattle to catch insects. This bird is not territorial; several might perch together in trees, even during nesting season. They also gather at communal perches and foraging areas, and often soar communally while hunting insects. As many as 20 birds have been recorded following a herd of livestock for flushed insects. The Mississippi Kite never hovers and has a smooth graceful flight with its white secondary feathers showing.

• **SONG** Usually silent. Has alarm call of whistled *kee-e-e*. Also whistles *phew-phew*, *phew-phew*, resembling that of Osprey.

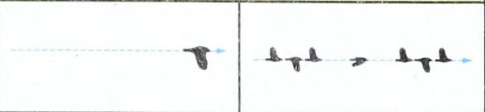
• **BEHAVIOR** Gracefully catches large flying insects, often eating them in midair. Hunts with flock.

• **BREEDING** Monogamous. Colonial. Little courtship activity occurs on the US breeding grounds as the birds are already paired when they return from wintering in the neotropics.

• **NESTING** Incubation 31–32 days by both sexes. Young remain in nest 34 days, fed by both sexes. 1 brood per year.

• **POPULATION** Common to fairly common. Expanding range, particularly west of the Mississippi River. Regularly strays as far north as the southern Great Lakes region.

Flight Pattern



Buoyant flight with steady wingbeats; sometimes alternates several wing strokes with short to long glides.

Nest Identification

Shape		Location	
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Sticks and twigs • lined with green leaves and Spanish moss (where available) • in upper branches, small forks, and occasionally on horizontal lines, 30–135 feet above ground • built by both sexes • 1–3 white or bluish white eggs, unmarked or faintly spotted, often nest-stained.



JUVENILE

solid black tail

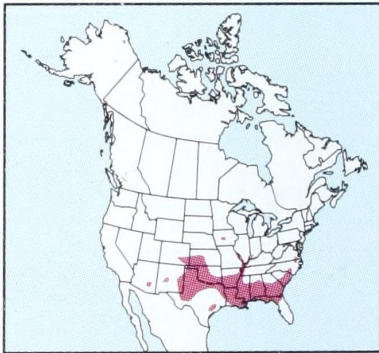
Similar Birds



WHITE-TAILED KITE
Lighter tail; black shoulder patches; black “thumb” mark under wing.



NORTHERN HARRIER ♂
Male hovers and is larger; dark secondary feathers; white rump patch; facial disk.



Plumage Sexes similar	Habitat 	Migration Migratory	Weight 12.6 ounces
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DATE _____ TIME _____ LOCATION _____

Family ACCIPITRIDAE	Species <i>Haliaeetus leucocephalus</i>	Length 34–43 inches	Wingspan 6–8 feet
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BALD EAGLE

The national bird of the United States has an awe-inspiring wingspan and striking white head and tail that make adults easy to identify. Big concentrations of these huge birds can be seen perched in trees and resting on sandbars when salmon run in rivers of the Northwest. Juveniles can be recognized by their large size; dark brown head, tail, and body; mottled white patches on underwings and underparts; grayish eyes; and light yellow feet.

- **SONG** Both sexes utter gull-like squealing cackle of *kleek-kik-ik-ik-ik* or lower *kak-kak-kak*.
- **BEHAVIOR** Hunts for prey, primarily fish, especially in breeding season. Sometimes steals fish from Ospreys. Also eats carrion and injured or crippled waterfowl, squirrels, rabbits, and muskrats.
- **BREEDING** Monogamous; thought to pair for life. Solitary nester.
- **NESTING** Incubation 31–46 days by both sexes. Semialtricial young stay in nest 70–98 days until first flight. Fed by both sexes. 1 brood per year.
- **POPULATION** Fairly common to common but local outside Florida and Alaska.
- **CONSERVATION** Protected by national wildlife refuges and legally with heavy fines. Made great comeback, especially in the United States, since the 1970s with widescale restoration programs, and the banning of DDT and other chemical pollutants. Moved from endangered status to threatened.



JUVENILE

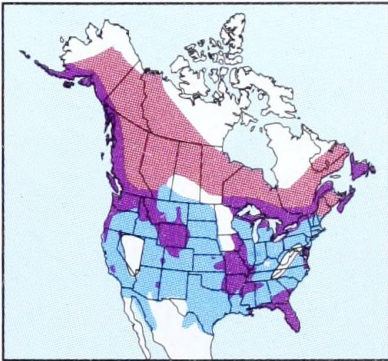
Similar Birds



GOLDEN EAGLE
Similar to juvenile
• adult has less massive bill; less blotchy white on underwings and underparts; golden feathers on head
• juvenile has distinct white patches at base of primaries and base of tail; smaller head and bill; feathered legs.



STELLER'S SEA-EAGLE
Adult has long wedge-shaped white tail; white thighs and shoulders
• juvenile has long wedge-shaped white tail with dark tips
• Alaskan range.



Flight Pattern

Several deep wing beats alternate with long glides; often flies direct with deep steady wing beats. Also soars on thermals.

Nest Identification

Shape Location

Made of large sticks and vegetation • deeply lined with fine material • in fork of tall tree or on ledge, 30–60 feet above ground • built by both sexes • 2 bluish white or dull white eggs, often nest-stained; 3 inches long.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 9.1 pounds
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DATE _____ TIME _____ LOCATION _____

Family ACCIPITRIDAE	Species <i>Haliaeetus albicilla</i>	Length 31–40 inches	Wingspan 6–8 feet
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WHITE-TAILED EAGLE

Sometimes referred to as an erne, the White-tailed Eagle is the fourth-largest eagle in the world and is only a little smaller than Steller’s Sea-Eagle. Birdwatchers in North America sometimes can spy this native of Eurasia and Greenland on the Aleutian Island Attu, where it has nested, or on other Aleutian Islands. Eastern records of its appearance exist from just after the turn of the 20th century along the north Atlantic Coast. Juveniles have darker plumage than adults and a mottled white base of the tail.

- **SONG** Barking calls with head thrown up and back, *krick-krick-krick* or *grah-grah-grah*.
- **BEHAVIOR** Hunts fish by snatching them from the water’s surface. Sometimes steals from gulls; also eats young guillemots, alcids, seals, rabbits, rodents, and carrion. Found near seacoasts and rivers.



JUVENILE

- **BREEDING** Monogamous; thought to pair for life. Solitary nester. Males fight in flight over mate.
- **NESTING** Incubation 35–45 days by female. Semialtricial

young initially fed by male then fed by both sexes. First flight at 70 days. 1 brood per year.

- **POPULATION** Accidental to casual primarily on Attu and other Aleutians. Declining.
- **CONSERVATION** Declined over 20th century.

Flight Pattern



Heavy flight with strong deep steady wing beats; sometimes alternates with short to long glides; soars on thermals.

Nest Identification

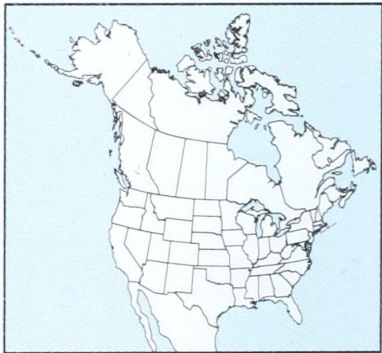
Shape  Location 

Made of sticks, grasses, seaweed, and bones of prey • in large trees, usually conifers, often 60 feet above ground or on rocky ledges or even a hammock when trees are unavailable • 1–3 dull white eggs.

Similar Birds



BALD EAGLE
White undertail coverts; white head • juvenile has darker underwing; darker tail lacks wedge shape and narrow dark terminal band.



Plumage Sexes similar	Habitat     	Migration Most do not migrate	Weight 8.8 pounds
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DATE _____ TIME _____ LOCATION _____

Family ACCIPITRIDAE	Species <i>Circus cyaneus</i>	Length 16–24 inches	Wingspan 38–48 inches
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NORTHERN HARRIER

Its owl-like facial disk and white rump patch, which is prominent in flight, set the Northern Harrier apart from all other North American falconiformes. Males take several years to acquire their gray-plumaged upperparts. Their wings are long with black-tipped trailing edges, and the outermost four or five primaries are black.

- **SONG** Shrill calls *kek, kek, kek* or *keee, keee, keee*, especially around the nest.
- **BEHAVIOR** Hunts using low slow flight that consists of alternately flapping and gliding with the wings held in a shallow V above the back. Often quarters back and forth over low vegetation and can turn and drop rapidly on prey that it may detect initially by sound. Feeds on small mammals, especially rodents up to the size of a small rabbit, frogs, snakes, small birds, carrion, and large insects. Sometimes hunts the edges of grass fires to capture prey driven out by the flames. Courtship flight of males is thrillingly acrobatic.
- **BREEDING** Some pairs monogamous; some males are polygamous with up to 3 mates. Solitary nester. Both sexes very vocal with high-pitched screams when defending nest.
- **NESTING** Incubation 31–32 days by female. Semi-altricial young stay in nest 30–35 days, fed by both sexes. 1 brood per year.
- **POPULATION** Common but declining.



MALE



FEMALE



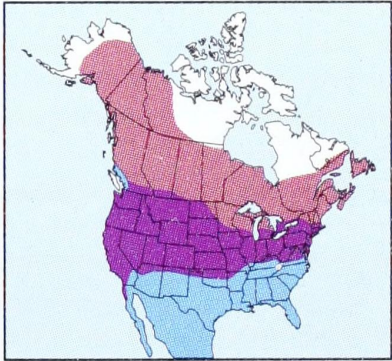
JUVENILE

Similar Birds	
	ROUGH-LEGGED HAWK Base of tail (not rump) white; broad blackish subterminal band on tail • does not course low over fields but hunts from perch or by hovering.

Flight Pattern
Several deep wing beats alternate with glides.

Nest Identification
Shape Location

- **CONSERVATION** Populations have declined everywhere on its breeding range because of the loss of marshland habitat as well as pesticides. Formerly, many were lost to shooting.



Sticks and grass lined with fine material • usually placed on the ground • may be 5 feet above water or marshy terrain • built by both sexes, but female does most construction • 3–9 bluish white eggs, sometimes spotted with brown, 1.8 inches long.

Plumage Sexes differ	Habitat	Migration Some migrate	Weight 12.6 ounces
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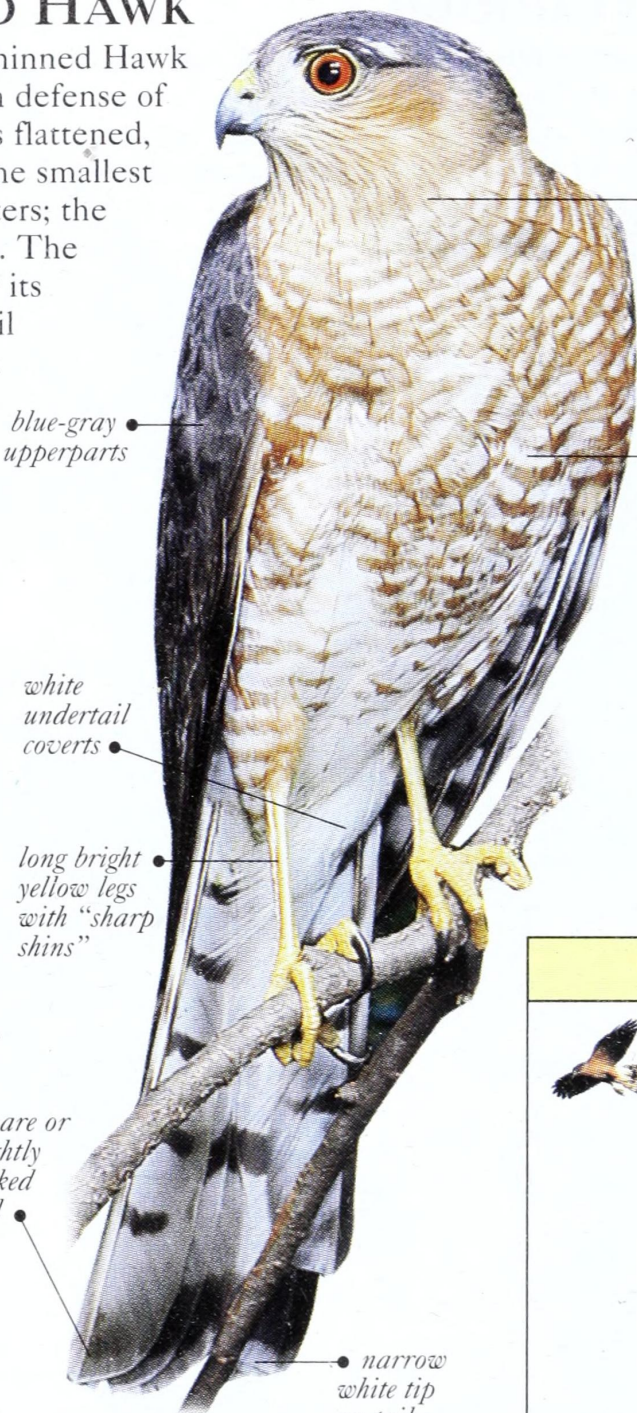
DATE _____ TIME _____ LOCATION _____

Family ACCIPITRIDAE	Species <i>Accipiter striatus</i>	Length 10–14 inches	Wingspan 20–28 inches
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SHARP-SHINNED HAWK

A territorial bird, the Sharp-shinned Hawk occasionally strikes humans in defense of its nest. Its name describes its flattened, thin tarsus or shank. This is the smallest of the North American accipiters; the female is larger than the male. The head and neck seem small for its long, slender body. Its long tail has three to four narrow black crossbars, and is squared or notched on the tip. Juveniles have brown upperparts and white underparts with heavy brown streaking.

- **SONG** When disturbed utters *kek-kek-kek* or *kik-kik-kik*. Call is melancholy cry.
- **BEHAVIOR** Eats mostly small birds, including songbirds, taken off ground or twigs, or in air. Also eats small mammals (including bats), reptiles, grasshoppers, and other larger insects.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 32–35 days by female. Semialtricial young stay in nest 23–27 days. Fed by both sexes. 1 brood per year.
- **POPULATION** Common to fairly common.
- **FEEDERS** Often attracted to concentrations of small birds



finely streaked red-brown throat

blue-gray upperparts

red-brown bars across chest and belly

white undertail coverts

long bright yellow legs with "sharp shins"

square or slightly forked tail

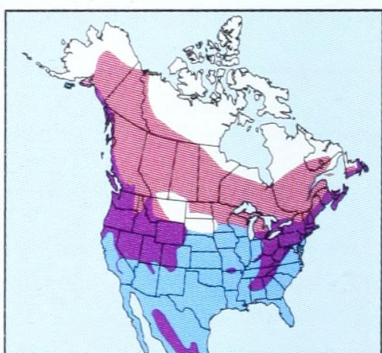
narrow white tip on tail



JUVENILE

Similar Birds

 **COOPER'S HAWK**
Rounded tail; larger (but female Sharp-shinned approach male Cooper's in size); larger head; more contrast between black crown and face; wide white band on tip of tail (can be tricky because of feather wear); sometimes lightly streaked undertail coverts.



at bird feeders, especially in winter.

- **CONSERVATION** Decline during 1950s through 1970s due to pesticides and heavy metal pollutants in environment. Some comeback in 1980s but is perhaps declining again.

Flight Pattern

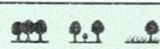


More buoyant flight than other accipiters with several rapid wing beats between glides.

Nest Identification

Shape  Location 

Made of sticks and twigs • lined with strips of bark, grass, and coniferous needles • sometimes in deciduous trees but usually conifers, 10–60 feet above ground, next to trunk • 4–5 white or bluish eggs marked with browns, 1.5 inches long.

Plumage Sexes similar	Habitat 	Migration Some migrate	Weight 3.6 ounces
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Family ACCIPITRIDAE	Species <i>Accipiter cooperii</i>	Length 14–21 inches	Wingspan 27–36 inches
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COOPER’S HAWK

The bird most likely to steal poultry off farms, Cooper’s Hawk is the true chicken hawk that small family farmers have called the Blue Darter. It is named after William Cooper, who was the first person to collect one of these birds and have it identified. Like most hawks, the juvenile has heavily streaked underparts and brown upperparts, whereas adults show blue-gray upperparts. Females are larger than males, and both show a blue-gray back. In flight the long tail appears rounded.

- **SONG** Alarm call is *kac-kac-kac* or *kuck, kuck kuck, kuck*.
- **BEHAVIOR** Territorial; will



not allow similar Sharp-shinned Hawk in same woodland. Attacks poultry, other birds, small mammals, and takes songbirds out of nest. Occasionally eats fish. Sometimes carries prey to water and kills it by drowning. Hunts by waiting in ambush or by dashing in swift low flight through wooded lot; surprises prey and catches it with talons.

- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 32–36 days by both sexes, but more by female. Semialtricial young stay in nest 27–34 days, fed by both sexes. 1 brood per year.

Flight Pattern



Rapid wing beats followed by short glide; often circles in flight on thermals.

- **POPULATION** Uncommon to rare. Steadily increasing after bottoming out in 1970s.
- **CONSERVATION** Decline in mid-20th century principally due to pesticides. Stable or increasing in most areas.

Similar Birds



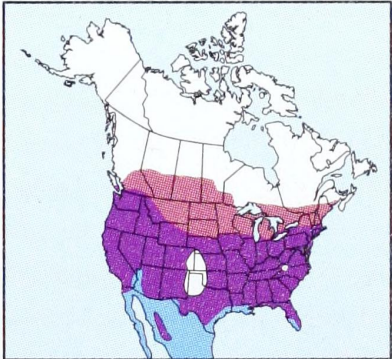
SHARP-SHINNED HAWK
Shorter tail with notched or squared end; smaller head; less contrast between back and crown; narrower white band at tip of tail
• male much smaller, but female similar in size to male Cooper's.

Nest Identification

Shape 

Location 

Sticks and twigs • lined with chips, outer bark strips, and occasionally green conifer needles • in crotch of conifer near trunk or in deciduous tree, 10–60 feet above ground • built by both sexes, but male does more • 4–5 bluish white or greenish white eggs, spotted with browns and usually nest-stained; elliptical to subelliptical, 1.5 inches long.



Plumage Sexes similar	Habitat 	Migration Some migrate	Weight 12.3 ounces
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DATE _____ TIME _____ LOCATION _____

Family ACCIPITRIDAE	Species <i>Accipiter gentilis</i>	Length 19–27 inches	Wingspan 40–47 inches
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NORTHERN GOSHAWK

An agile and proficient flier, the Northern Goshawk is not afraid to catch prey near humans when it is hungry. This bold hawk has been known to attack duck decoys. It appears pale gray at a distance, and in flight the shorter tail and longer, broad wings (for an accipiter) give the superficial appearance of a Red-tailed Hawk. The female is the larger and dominant partner in a pair.

• **SONG** Alarm call is harsher and deeper than Cooper's Hawk, *kac-kac-kac* or *kuk, kuk, kuk*. Female utters high-pitched melancholy whine, *kee-a-ah*, reminiscent of the Red-shouldered Hawk.

• **BEHAVIOR** Eats snowshoe hare, lemmings, and grouse; migrates south in irruptive numbers when their prey populations crash. Also eats small to medium mammals, large and small birds (including ducks and crows), and some large insects. Dives and kills prey on ground or in air with deadly grip of talons. Female very defensive of nest site to the point of attacking intruders, including humans.

• **BREEDING** Monogamous. Solitary nester.

• **NESTING** Incubation 36–42 days by both sexes, but female does more. Semialtricial young stay in nest 41–43 days. Fed by both sexes. First flight at 45 days. 1 brood per year.

• **POPULATION** Uncommon to rare.

• **CONSERVATION** Expanding range. Possible increase in the Northeast during recent decades. Southwestern mountain populations may be threatened by loss of habitat.

Flight Pattern



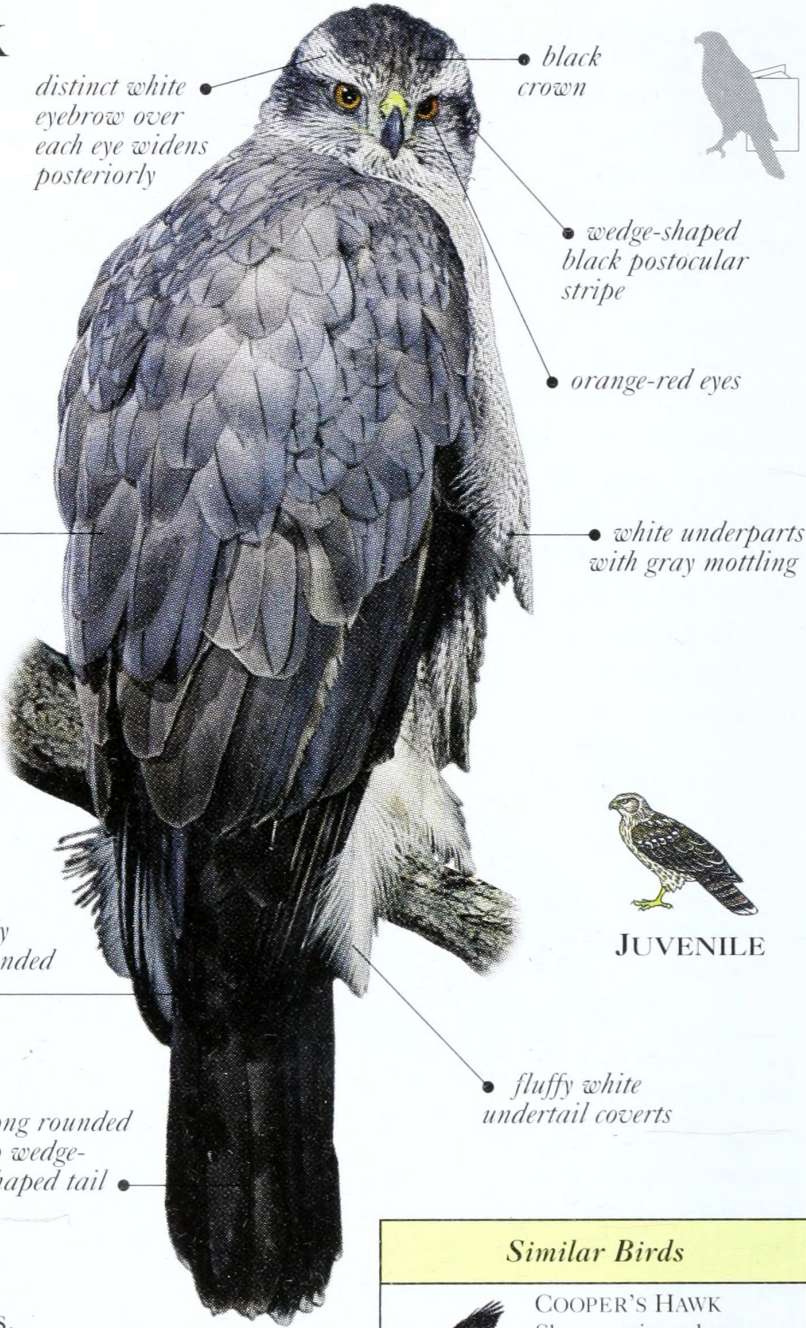
Several strong rapid wing beats interspersed with glides; soars on thermals.

Nest Identification

Shape 

Location 

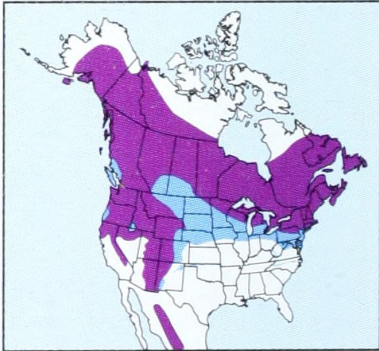
Sticks and twigs • lined with bark strips, evergreen sprigs, grass, and feathers • in fork of branch or trunk of tree, 20–75 feet above ground • built by both sexes, but male does more • 3–4 bluish or off-white eggs, occasionally nest-stained or spotted with brown; slightly elongate elliptical or oval, 2.3 inches long.



Similar Birds



COOPER'S HAWK
Shorter wings; longer tail; darker blue-gray upperparts; barred rusty underparts.



Plumage Sexes similar	Habitat 	Migration Migratory	Weight 2.0 pounds
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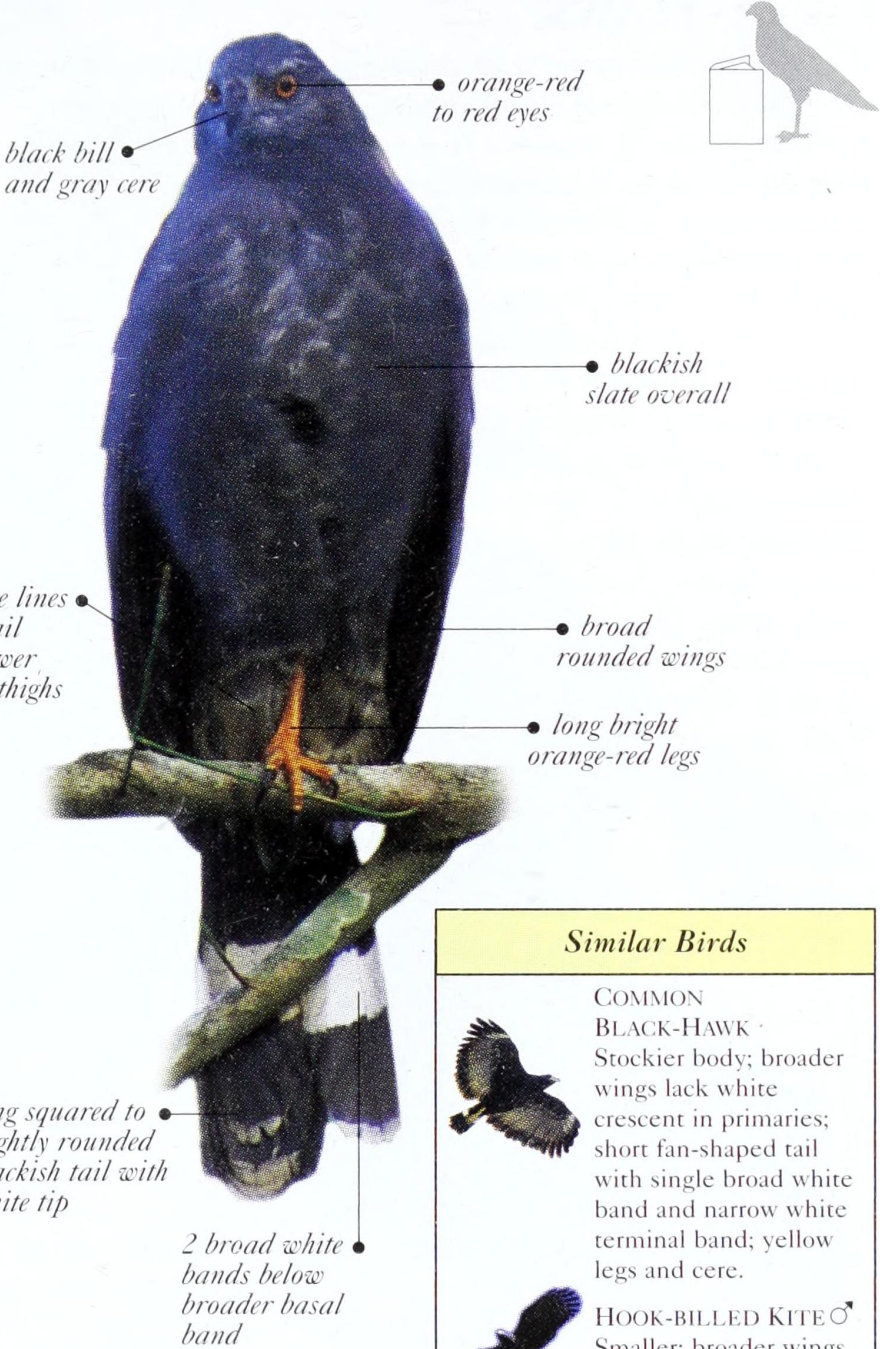
DATE _____ TIME _____ LOCATION _____

Family ACCIPITRIDAE	Species <i>Geranospiza caerulescens</i>	Length 18–21 inches	Wingspan 36–41 inches
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CRANE HAWK

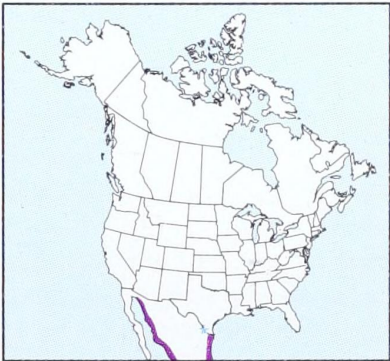
This small-headed hawk is usually seen in forested areas near water. The Crane Hawk soars for only short periods of time, and its floppy wing beats are distinctive. This slate-gray hawk is distinctive on the wing with two white tail bands, blackish underwings, and a white crescent across the outer primaries. Juveniles are lighter gray with pale buff mottling on the chest, belly, and thighs.

- **SONG** Clear loud whistle, *weeo-weeeoo*, or thin *kweeuur*. During interactions a series of deep low whistles, *woop-woop whooooou whooooou whooooou*.
- **BEHAVIOR** Perches in trees. Uses its long legs to reach into the crevices of trunks, tree holes, and bromeliads while flapping wings for balance; extracts lizards, frogs, insects, nestling birds, and small rodents. Often stands with body horizontal above straight legs.
- **BREEDING** Monogamous.
- **NESTING** Breeding biology poorly known; incubation by female estimated at 32–36 days. Young semialtricial, brooded by female; stay in nest estimated 27–35 days; fed by both sexes. 1 brood per year.
- **POPULATION** The Crane Hawk is an uncommon and local



Similar Birds

- COMMON BLACK-HAWK ♂ Stockier body; broader wings lack white crescent in primaries; short fan-shaped tail with single broad white band and narrow white terminal band; yellow legs and cere.
- HOOK-BILLED KITE ♂ Smaller; broader wings with white barring in primaries; barred underparts.



resident in subtropical and tropical America. It has occurred once in the US at the Santa Ana National Wildlife Refuge in southeastern Texas.

- **CONSERVATION** Many hawks are still killed by people in Latin American countries.

Flight Pattern	
Loose floppy wing beats alternated with glides.	
Nest Identification	
Shape	Location

Sticks lined with leaves • in trees in middle to upper levels • 2 unmarked white eggs.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 11.9 ounces
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DATE _____ TIME _____ LOCATION _____

Family ACCIPITRIDAE	Species <i>Asturina nitida</i>	Length 16–18 inches	Wingspan 32–38 inches
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GRAY HAWK

This stout little hawk is an uncommon and local resident of low-lying woodlands along streams in south Texas and a summer visitor to Arizona. It is not an accipiter as formerly thought but actually a small buteolike hawk. Juveniles are rusty or sooty brown with brown-streaked pale to buff underparts and have narrow dusky bars on the tail. In flight adults show whitish underparts with gray barring, rounded wing tips, a black tail with numerous white bands, and a white rump.

• **SONG** Loud descending mournful whistles, often in series of 3–7, *whheeeooo*; plaintive *cree-ee-ee*.

• **BEHAVIOR** Often perches conspicuously on roadside utility poles, wires, posts, and trees. Darts to ground for swift-running lizards. Picks up prey in talons. Also eats snakes, rabbits, small rodents, some birds, fish, and beetles.



JUVENILE



Similar Birds



BROAD-WINGED HAWK
Barred reddish underparts, including underwing linings, dark trailing border of wing, and pointed wing tips; lacks white rump patch.

- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 32 days by both sexes. Semialtricial young stay with female in nest 30 days. Male brings food for first 14 days. Then both parents feed. 1 brood per year.

Flight Pattern

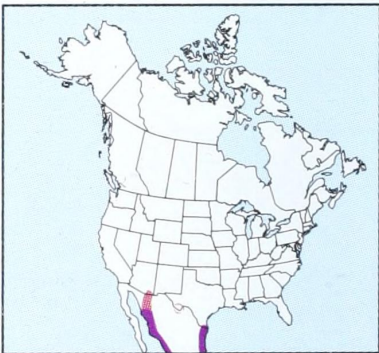
Graceful buoyant flap-and-glide flight; soars often but not to great heights.

Nest Identification

Shape

Location

• **POPULATION** Casual to rare. No more than 50 pairs known north of Mexico, but species is widespread in tropics.



Green twigs and sticks • lined with green leaves • 40–60 feet above ground concealed in treetops, especially sycamore or cottonwood • built by both sexes • 2–3 white to bluish white eggs, seldom marked (brown marks when present) but often nest-stained, 2 inches long.

Plumage Sexes similar	Habitat	Migration Some migrate	Weight Undetermined
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DATE _____ TIME _____ LOCATION _____

Family ACCIPITRIDAE	Species <i>Buteogallus anthracinus</i>	Length 20–23 inches	Wingspan 48–50 inches
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COMMON BLACK-HAWK

The Common Black-Hawk is chunky, gentle, and lethargic, except while nesting, when it will often plunge from great heights and snap off dead branches from trees during flight. They most frequently use large cottonwood trees in riparian stands along rivers as nest sites. These birds will abandon nest sites if there is too much human disturbance. In flight adults appear black with a single broad white tail band, a narrow white terminal tip on the very short fan-shaped tail, and a small white patch at the base of the outer primaries. Juveniles have a buff head and underparts and black-and-white bands on the tail.

- **SONG** Often calls when soaring and in display during breeding season. A triple-note ascending whistle and a drawn-out squealing *ka-a-a-ah, ka-a-a-ah*.
- **BEHAVIOR** Sits on open perch or walks on ground watching for fish and crabs washed up on sandbars. Eats frogs, fish, crabs, reptiles, small mammals, insects, and occasionally other birds. Soars often, especially in midday.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 34 days by both sexes. Semialtricial young remain in nest 42–49 days, then move to nearby trees where parents continue to feed for another 35–42 days. 1 brood per year.

- **POPULATION** Rare, local.
- **CONSERVATION** Declining in North America, with an estimated 250 pairs remaining. Vulnerable to disturbance and loss of habitat.

Flight Pattern

Soars on thermals; deep steady and fairly slow wing beats alternate with short to long glides.

Nest Identification

Shape

Location

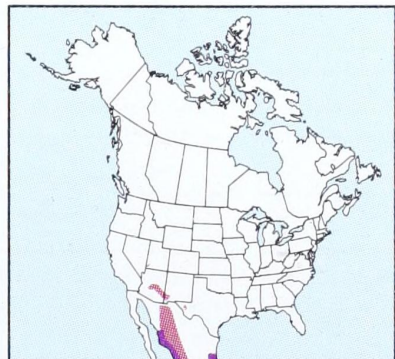
Dry sticks and mistletoe • in crotch of tree, usually cottonwood, sycamore, or large mesquite, 15–100 feet above ground • built by both sexes • 1–3 white eggs sometimes marked with brown; short ovate or nearly oval, 2.3 inches long.



Similar Birds

BLACK VULTURE
Larger whitish patch at base of primaries; lacks white bands on tail; grayish white feet, legs, and bill.

ZONE-TAILED HAWK
Narrower 2-toned wings with dark wing linings and barred silver-gray flight feathers; wings held in dihedral; more tail bands; less yellow-orange under eyes.



Plumage Sexes similar	Habitat	Migration Some migrate	Weight 1.6 pounds
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DATE _____ TIME _____ LOCATION _____

Family ACCIPITRIDAE	Species <i>Parabuteo unicinctus</i>	Length 17–24 inches	Wingspan 46 inches
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HARRIS'S HAWK

Named after a friend of John James Audubon, Edward Harris, Harris's Hawk is rather tame. This dark sooty brown hawk has beautiful markings, including rufous-chestnut shoulders, underwing linings, and thighs, and a boldly marked black-and-white tail set off by a white rump and white tail coverts. Once called the Bay-winged Hawk, the juvenile has streaked underparts, a white rump, and rusty shoulders not as deeply colored as those of the adult.

- **SONG** Loud harsh nasal screams of *jaaahrr*, sounding similar to a Barn Owl.
- **BEHAVIOR** Often perches conspicuously near roads on utility



JUVENILE

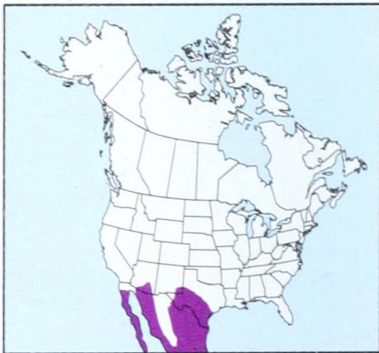
poles, fence posts, and trees. Hunts actively with low quartering flight similar to that of a Northern Harrier, or with rapid dashes like an accipiter. Gregarious; hunts cooperatively in small groups, and large prey is shared. Often 2–3 hunt together, chasing prey in turn until one makes the kill. Eats variety of small rodents, rabbits, ducks, herons, smaller birds, and reptiles.

- **BREEDING** Polyandrous. Solitary nester.
- **NESTING** Incubation 33–36 days by both sexes. Semialtricial young stay in nest 40–49 days, fed by both sexes. Often 2 broods per year.
- **POPULATION** Uncommon to fairly common but declining in some areas.

Similar Birds



RED-SHOULDERED HAWK
Lacks white patch at tail base but has multiple narrow white tail bands; barred rufous underparts; black-and-white barring in flight feathers.



Flight Pattern

Usually flies close to ground with several rapid wing beats followed by a short glide. Soars on thermals and updrafts.

• CONSERVATION

Disappeared from some former areas, such as lower Colorado River Valley and California; has been reintroduced to California. Threatened in some areas by illegal capture for falconry.

Nest Identification

Shape

Location

Sticks, twigs, and roots • lined with green mesquite, green shoots and leaves, grass, bark, and roots • in cactus 10–30 feet above ground • built by both sexes, but female does more • 2–4 white or bluish eggs, half marked with browns and lavender; short subelliptical to elongated, 2.1 inches long.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 1.6 pounds
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DATE _____ TIME _____ LOCATION _____

Family ACCIPITRIDAE	Species <i>Buteo magnirostris</i>	Length 13–16 inches	Wingspan 27–31 inches
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ROADSIDE HAWK

For birders who are as far south of the border as Central Mexico, the Roadside Hawk is the common small buteo of both slopes and can be seen perched on roadside fence posts, wires, trees, or telephone lines. But north of the border in the US, it is an accidental straggler to the Rio Grande Valley of southern Texas. In flight the rounded wings show much rufous in the primaries, and the grayish tail has many dark bands. The creamy to buff underwing coverts have dark brown flecks.

• **SONG** A nagging drawling scream, *KREE-yurrr* or *meeeahhh*.

• **BEHAVIOR**

Prefers plantations, second-growth woodlands, and woodland and field edges. Often perches low on roadside fence posts, trees, and utility wires, from which it hunts by dropping on prey. Eats large insects, reptiles, and small mammals; rarely eats birds. Often tame, allowing a close approach by humans. Soars infrequently, then keeps low and makes short flights.

• **BREEDING** Monogamous.

• **NESTING** Incubation 21–27 days primarily by female. Semialtricial young; first flight at about 40 days. Probably 1 brood per year.

• **POPULATION** Accidental in southern Texas. Common to fairly common from Central Mexico southward through its range into Argentina.

Flight Pattern



Flies with series of rapid stiff wing beats interspersed with short glides. Soars infrequently on thermals.

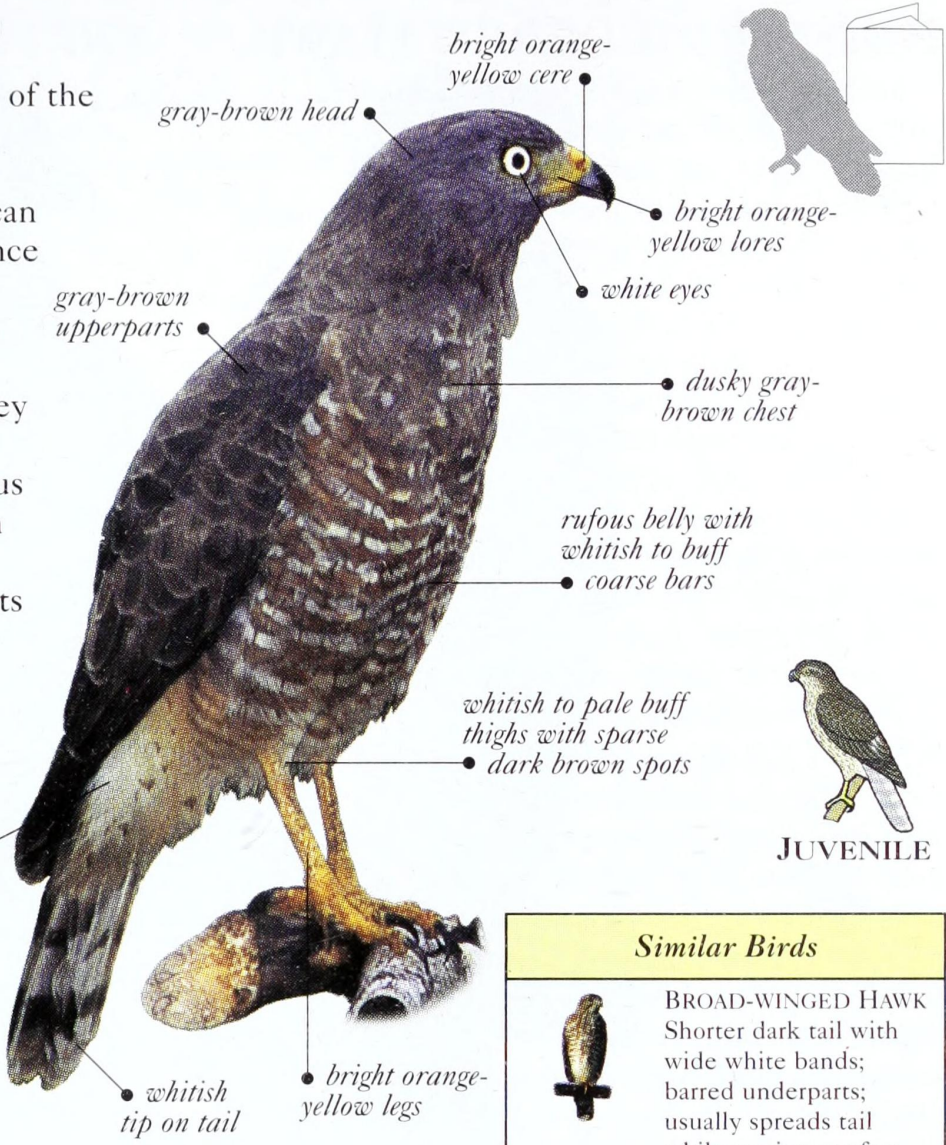
Nest Identification

Shape 

Location 

• **CONSERVATION**
Deforestation in the tropics seems to have aided this bird as it produces habitats more favorable to the bird's hunting and nesting habits, to the point that it is increasing in numbers.

Made of sticks • in trees in mid to upper levels 20-60 feet above ground; built by both sexes • 2 whitish eggs speckled to mottled with brown • short elliptical; 1.9 inches long.



JUVENILE

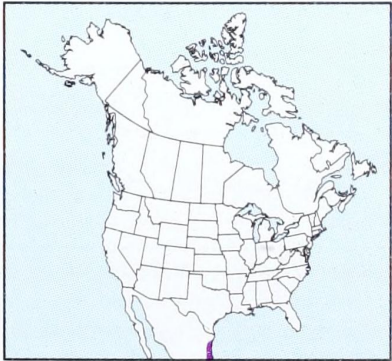
Similar Birds



BROAD-WINGED HAWK
Shorter dark tail with wide white bands; barred underparts; usually spreads tail while soaring; prefers more wooded habitat.



RED-SHOULDERED HAWK
Juvenile is larger; rufous on upper and lower wing coverts; narrower pale bands on long dark tail; in flight shows narrow pale panel across base of outer primaries.



Plumage Sexes similar	Habitat 	Migration Migratory	Weight 1.5 pounds
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DATE _____ TIME _____ LOCATION _____

Family ACCIPITRIDAE	Species <i>Buteo lineatus</i>	Length 17–24 inches	Wingspan 32–50 inches
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RED-SHOULDERED HAWK

This bird uses the same territory for years, and even succeeding generations may return to the same territory. The longest recorded continuous use of the same territory is forty-five years. Five races (*lineatus*, *alleni*, *extimus*, *elagans*, and *texanus*) show variations in color and size but all have barred rusty underparts, reddish wing linings, and shoulders with banded tails. In flight the long black tail displays numerous narrow white bands on adults and juveniles. Flight feathers are spotted and barred black and white and show a pale “window” at the base of the outer primaries. Male is larger than female.

• **SONG** Evenly spaced series of clear high loud and often rapidly repeated *kee-ah* or *clee-u clee-u clee-u* notes. Blue Jays can mimic the call perfectly.

• **BEHAVIOR** Stalks prey from perch. Catches and eats small to medium-sized mammals, small reptiles, amphibians, large insects, spiders, earthworms, snails, and an occasional bird. Prefers wet woodlands, often near water and swamps. Often perches low to hunt on posts, utility poles, and low to mid level in trees.

• **BREEDING** Monogamous. Solitary nester.
• **NESTING** Incubation 28 days by both sexes. Semialtricial young stay in nest 35–45 days. Fed by both sexes. 1 brood per year.

• **POPULATION** Fairly common in range.
• **CONSERVATION** Some decline due to habitat loss and human encroachment particularly in West. Pesticides in Midwest interfered with reproduction during the 1970s.

Flight Pattern



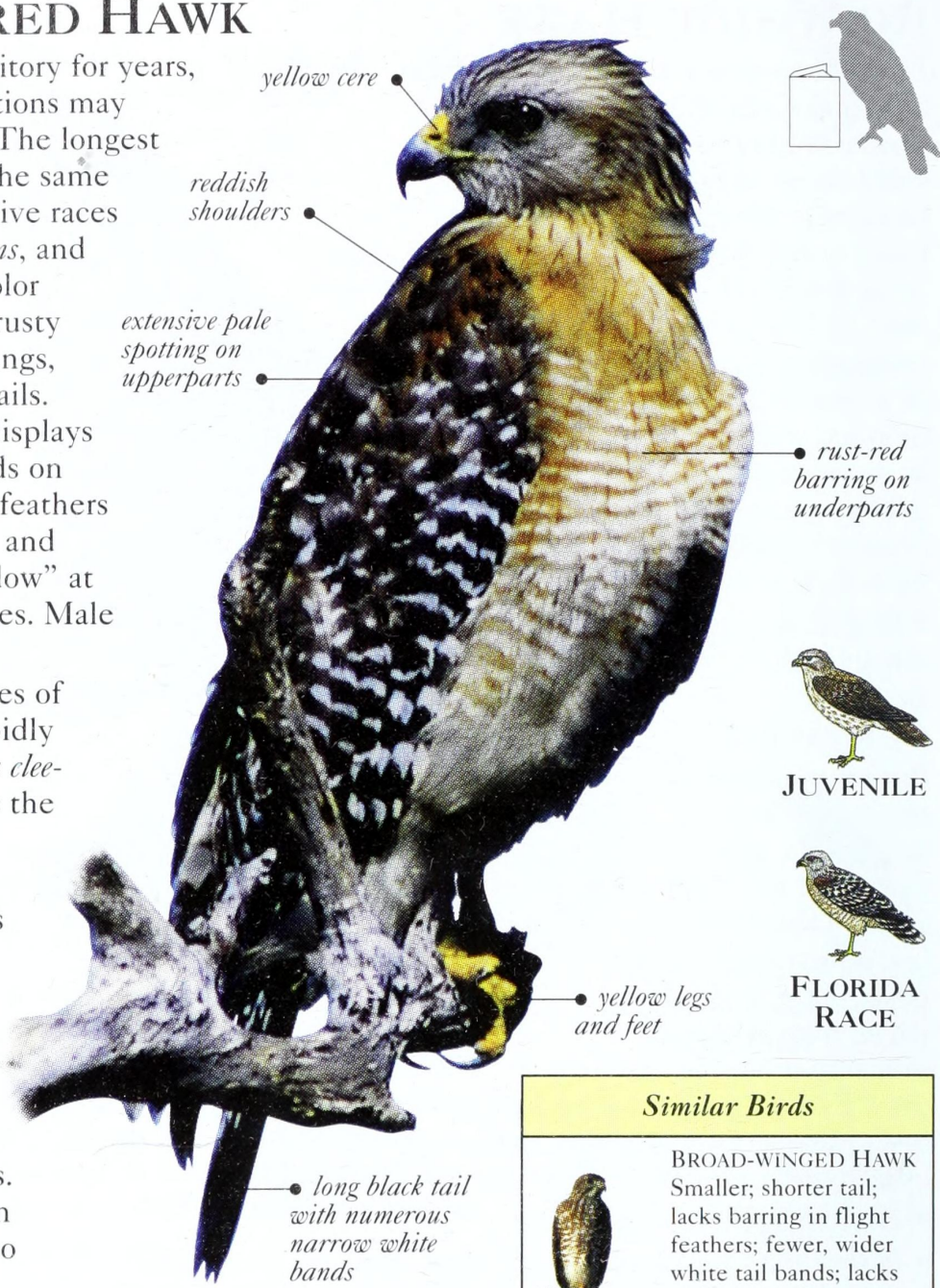
Flies with fairly rapid stiff wing beats; soars on flat wings and glides on slightly drooped wings. Soars on thermals.

Nest Identification

Shape 

Location 

Made of sticks, twigs, inner bark strips, dry leaves, moss, lichen, and coniferous needles • usually by a tree trunk 10–200 feet above ground • built by both sexes • 2–6 white or bluish white eggs, often nest-stained and marked with brown; short elliptical, 2.1 inches long.



JUVENILE

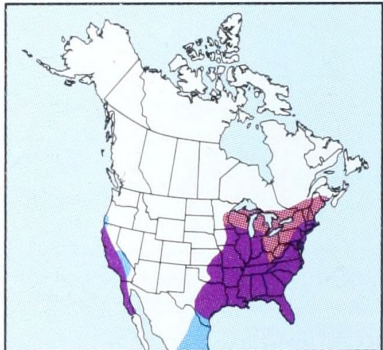


FLORIDA RACE

Similar Birds



BROAD-WINGED HAWK
Smaller; shorter tail; lacks barring in flight feathers; fewer, wider white tail bands; lacks reddish shoulders; lacks wing windows; peweelike call.



Plumage Sexes similar	Habitat 	Migration Some migrate	Weight 1.1 pounds
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DATE _____ TIME _____ LOCATION _____

Family ACCIPITRIDAE	Species <i>Buteo platypterus</i>	Length 13–19 inches	Wingspan 32–39 inches
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BROAD-WINGED HAWK

The smallest of the North American buteos is similar in size to a stocky crow. These birds, which migrate in flocks of thousands, make up the bulk of hawk flights in September in the East. This peaceful bird is one of the tamest hawks. In flight the tips of the flight feathers appear dark, producing a black border along the trailing edge of the wing, and the underwing linings vary from white to rusty-buff. The black-and-white bands in the tail are approximately equal in width. Juveniles are similar to adults but appear more washed out and have fainter tail bands; underparts are pale with heavy dark streaking.

- **SONG** Thin shrill whistle, *peeteeee* or *peweeeeeeeeeee*, often given in flight and similar to the high plaintive whistled note of an Eastern Wood-Pewee.
- **BEHAVIOR** Perches to watch for prey from utility poles and wires or near water along edge of woods. Hunts along wooded roads under the tree canopy. Swoops down to grab prey with talons. Eats amphibians, reptiles, small rodents, shrews, rabbits, some small birds, large insects, and insect larvae.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 28–32 days by both sexes, but mostly by female. Semialtricial young stay in nest 29–35 days, fed by both sexes. 1 brood per year.
- **POPULATION** Common in eastern US and southern Canada west to a portion of eastern British Columbia. Rare in winter in California and Florida.

Flight Pattern



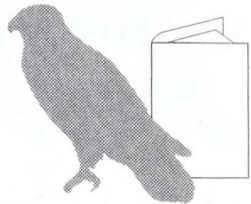
Several rapid shallow wing beats followed by a glide. Soars on thermals and updrafts.

Nest Identification

Shape 

Location 

Sticks, twigs, and dead leaves • lined with inner bark strips with lichen, outer bark chips, evergreen sprigs, and green leaves • in crotch of deciduous tree, 30–50 feet above ground • built by both sexes in slow process that takes 3–5 weeks • 2–4 white or bluish white eggs sometimes marked with brown; short elliptical, 1.9 inches long.



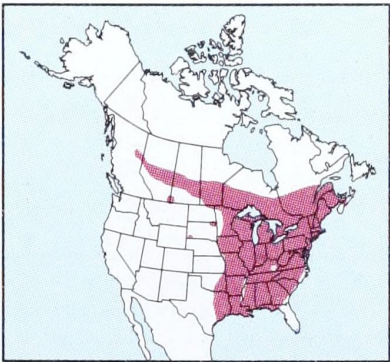
brown underparts with red barring



Similar Birds



RED-SHOULDERED HAWK
Larger in size; narrower, more rounded wings with barred and spotted black-and-white flight feathers; buff to rusty-red wing linings; longer, narrower tail with white bands much narrower than dark ones.



Plumage Sexes similar	Habitat  	Migration Migratory	Weight 14.8 ounces
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DATE _____ TIME _____ LOCATION _____

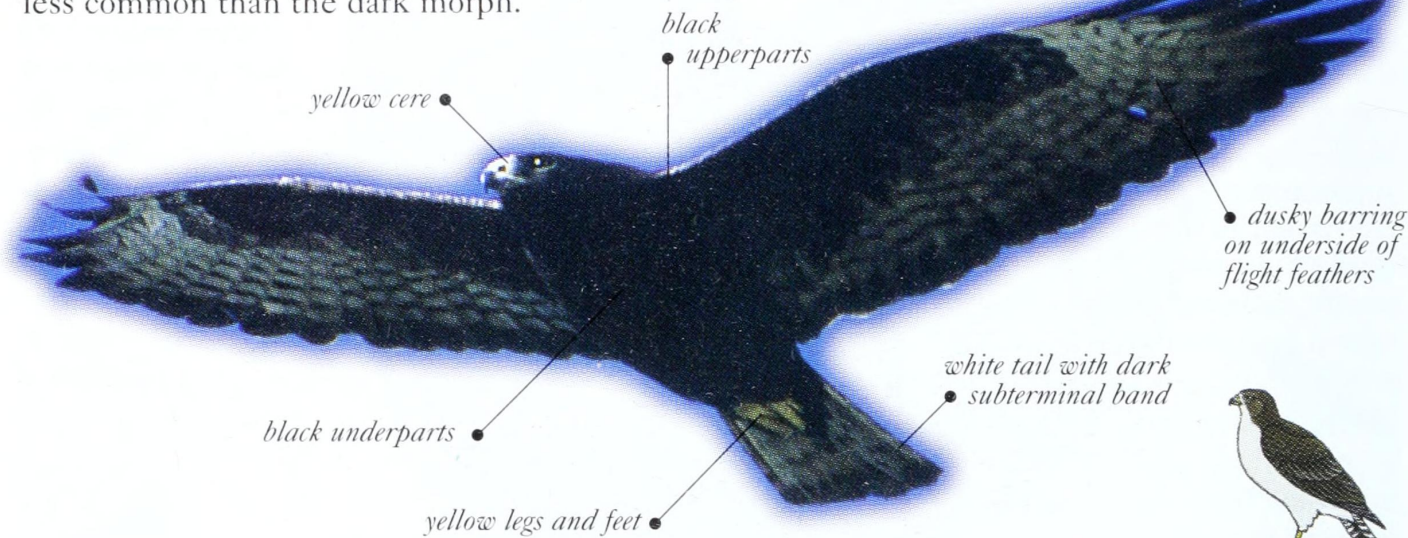
Family ACCIPITRIDAE	Species <i>Buteo brachyurus</i>	Length 15–17 inches	Wingspan 35 inches
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SHORT-TAILED HAWK

This crow-sized buteo is a rare to uncommon resident of the mangrove and cypress swamps of Florida and a rare to casual visitor in spring and summer to southern Texas. Most often observed while flying, this hawk rises out of the wooded lots in which it roosts on midmorning thermals, about the time the vultures do, and often spends much of the day high in the sky. In Florida the light morph, which has white underparts from chin to tail, is less common than the dark morph.



DARK MORPH



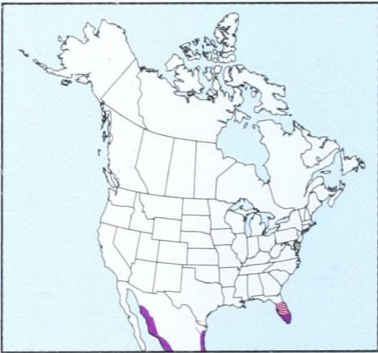
LIGHT MORPH

- **SONG** High-pitched squeal and scream similar to that of the Red-shouldered Hawk, but the second part can be extremely piercing, *ssheeeeeerrrrreeeee*.
- **BEHAVIOR** Rarely hunts from a perch; principally hunts from high in the air and swoops down to treetops to snatch large insects, small birds, lizards, and snakes. Known to eat various other bird species, this small raptor was once observed eating a Sharp-shinned Hawk.
- **BREEDING** Monogamous. Solitary nester. Male attracts female with display of aerial acrobatics.
- **NESTING** Incubation about 34 days by female; male feeds female during incubation. Altricial young are fed by female, but male brings food. First flight at about 40 days.
- **POPULATION** Rare to uncommon and local in southern and central Florida; casual to rare in southeastern Texas; fairly common in Mexico, Central America, and South America.

Similar Birds



SWAINSON'S HAWK
Similar to dark morph but larger; wings and tail are narrower and longer; has dark flight feathers • also similar to light morph but has blackish gray barring on flight feathers that contrasts with white wing linings; brown head, neck, and band across chest.



Flight Pattern

Series of rapid wing beats followed by a glide. Soars on rising thermals and updrafts.

Nest Identification

Shape

Location

- **CONSERVATION** Population appears to be stable, but only about 500 birds are recorded in Florida.

Fresh green sprigs, twigs, leaves, bits of moss, and lichen • at top of cypress or other tree, 8–100 feet above ground • built by female with materials gathered by male • 2–3 off-white or bluish white eggs, occasionally marked with brown, 2.1 inches long.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.0 pound
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DATE _____ TIME _____ LOCATION _____

Family ACCIPITRIDAE	Species <i>Buteo swainsoni</i>	Length 19–22 inches	Wingspan 46–58 inches
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SWAINSON’S HAWK

Sometimes traveling in huge flocks, these birds migrate from North America to Argentina, about 11,000–17,000 miles each year. This large buteo lives in open rangeland, hill country, plains, and grasslands where trees are sparse. Swainson’s Hawk is about the same size as the Red-tailed Hawk and has three different color morphs: light, rufous (intermediate), and dark. This variety provides for a confusing array of plumages: dark morphs are dark brown overall; the rufous morph is similar but with variegated medium brown underparts. In flight the narrow, slightly pointed wings are held in a slight dihedral, and the bird tilts from side to side like a Turkey Vulture.

- **SONG** Plaintive whistle, *kr-e-e-eeeeer*, similar to that of the Broad-winged Hawk.
- **BEHAVIOR** Hunts, sometimes in flocks, for grasshoppers and crickets. Stalks ground squirrels at their burrows. Catches prey in talons. Also eats mice, rabbits, lizards, frogs, toads, and an occasional game bird. Frequents grasslands, agricultural grain fields, and open landscapes.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 28–35 days by both sexes; female does more. Semialtricial young stay in nest 30–35 days. Fed by both sexes. First flight at 38–46 days. 1 brood per year.



uniformly dark brown upperparts

white wing linings

black bill with yellow cere

white throat

wide chestnut band on chest

pale buff to white belly

narrowly banded gray tail with wide dark subterminal band



JUVENILE



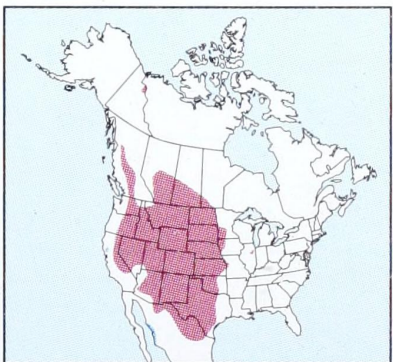
RUFOUS MORPH



DARK MORPH

LIGHT MORPH

Similar Birds	
	SHORT-TAILED HAWK Shorter, broader wings and tail; wings with pale barring only in flight feathers • light morph has completely white underparts and white forehead • Florida range; casual to southeast Texas.
	RED-TAILED HAWK Lacks breast band; pale flight feathers; reddish tail.



Flight Pattern	
Alternates series of powerful deep wing beats with long glides. Soars on thermals, updrafts, wings bent upward in dihedral.	

Nest Identification	
Shape	Location
Made of large sticks, twigs, brambles, grass, and similar materials • lined with inner bark, fresh leaves, flower clusters, down, and feathers • in tree 6–70 feet above ground • 2–4 bluish greenish white eggs marked with pale brown; subelliptical to elliptical, 2.2 inches long.	

Plumage Sexes similar	Habitat	Migration Migratory	Weight 2.0 pounds
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DATE _____ TIME _____ LOCATION _____

Family ACCIPITRIDAE	Species <i>Buteo albicaudatus</i>	Length 23–24 inches	Wingspan 48–54 inches
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WHITE-TAILED HAWK

The White-tailed Hawk’s yellow legs are the longest of any North American buteo. It can be seen flying with its wings held in a shallow V. Groups of ten to twenty or more may be attracted to grass fires from ten miles away to feed on prey escaping the flames. The female is similar to the male but has darker upperparts and more barring on the underparts. Adults in flight show light underparts, primaries with dusky barring, black-tipped flight feathers framing the trailing edge of the dark wing, white wing linings, and a short, broad white tail with a black subterminal band.

- **SONG** Usually silent. Near nest may give high-pitched alarm call, screaming *ke-ke-ke-ke* or *keh-eh, keh-eh, keh-eh, keh-eh*.
- **BEHAVIOR** Eats mostly rabbits; also small rodents, reptiles, frogs, grasshoppers, other large insects, and an occasional bird. Will eat carrion. Catches flying insects in the air. Spots prey from perch or while flying.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 29–32 days mostly by female. Semialtricial young may stay with parents up to 7 months. First flight at 46–55 days. Not clear which sex feeds young in first couple of weeks, but both sexes hunt for food. 1 brood per year.
- **POPULATION** Rare to uncommon in



Flight Pattern

Often flies close to ground with strong steady wing beats; soars with slight dihedral.

Nest Identification

Shape

Location

southeastern Texas; casual in southwestern Louisiana.

- **CONSERVATION** On threatened list in Texas. Decline in Texas from 1950 to 1970 possibly due to pesticides and habitat loss.

Uses same nest year after year and adds to it with sticks, twigs, grasses, and weeds • in top of low tree or shrub about 10 feet above ground • built by both sexes • 1–4 white eggs sometimes spotted with brown; oval, elliptical oval, ovate, or elliptical; 2.5 inches long.

Similar Birds

SWAINSON'S HAWK
Dark morph lacks reddish shoulder patch; uniformly dark upperparts and underparts.

FERRUGINOUS HAWK
Lighter-colored head; rufous thighs; feathered tarsus; larger reddish patch on shoulder and back; lacks dark subterminal tail band.



Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 1.9 pounds
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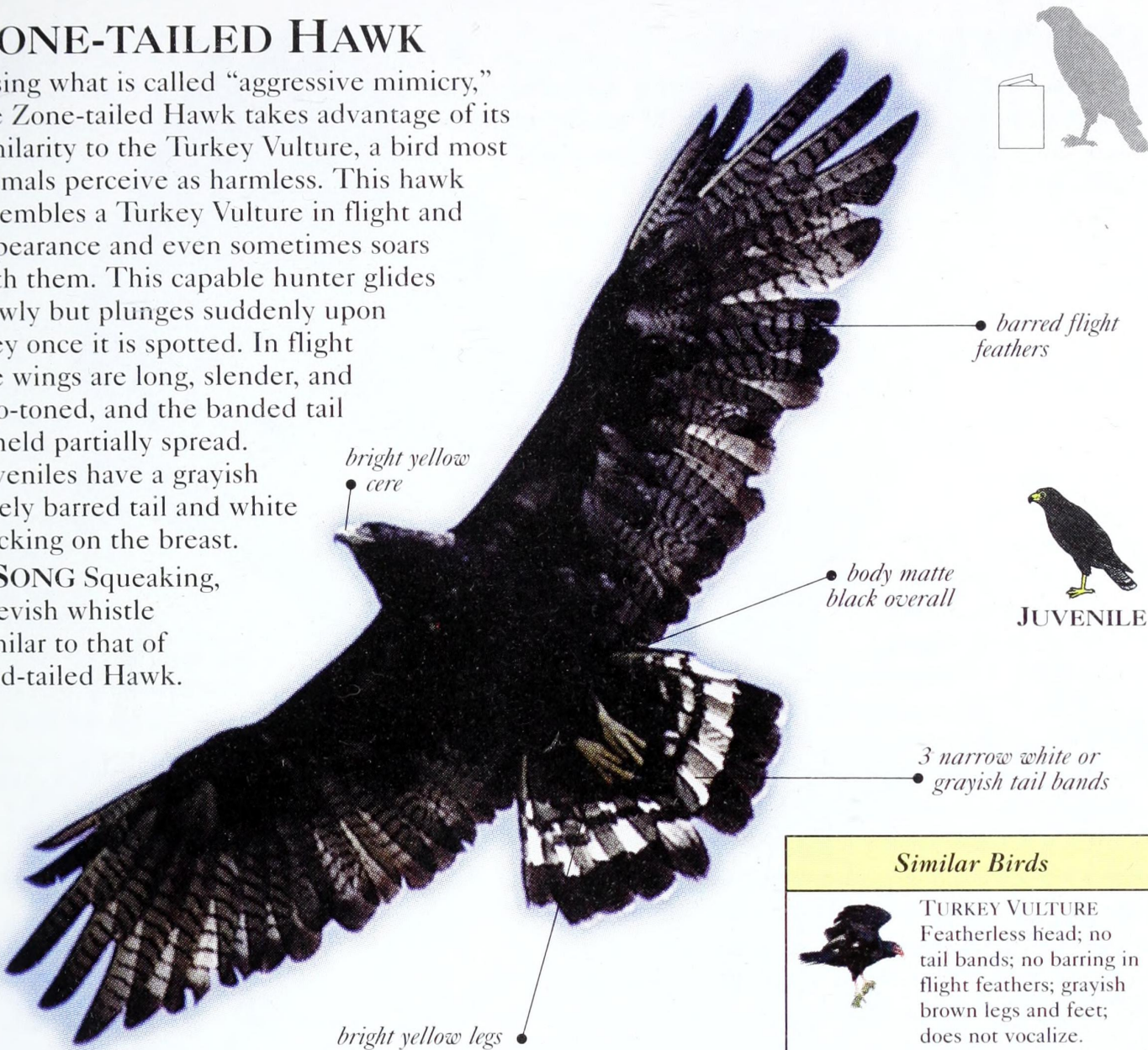
DATE _____ TIME _____ LOCATION _____

Family ACCIPITRIDAE	Species <i>Buteo albonotatus</i>	Length 18–21 inches	Wingspan 47–53 inches
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ZONE-TAILED HAWK

Using what is called “aggressive mimicry,” the Zone-tailed Hawk takes advantage of its similarity to the Turkey Vulture, a bird most animals perceive as harmless. This hawk resembles a Turkey Vulture in flight and appearance and even sometimes soars with them. This capable hunter glides slowly but plunges suddenly upon prey once it is spotted. In flight the wings are long, slender, and two-toned, and the banded tail is held partially spread. Juveniles have a grayish finely barred tail and white flecking on the breast.

- **SONG** Squeaking, peevish whistle similar to that of Red-tailed Hawk.



- **BEHAVIOR** Circles like a Turkey Vulture on wings held in a dihedral. Eats small rodents and small birds, including nestlings, snatched with talons while in flight. Also takes lizards, frogs, and small fish.
- **BREEDING** Monogamous. Solitary nester. Screams and vigorously defends nest against intruders.

Similar Birds

TURKEY VULTURE
Featherless head; no tail bands; no barring in flight feathers; grayish brown legs and feet; does not vocalize.

COMMON BLACK-HAWK
Broader wings with dark flight feathers; shorter white-tipped tail with single broad white band.

Flight Pattern

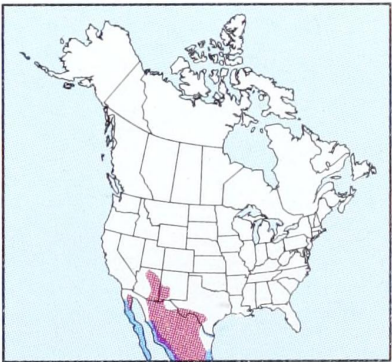
Flapping and gliding flight. Soars on thermals with wings lifted slightly above back and tilting from side to side.

Nest Identification

Shape

Location

- **NESTING** Incubation 35 days by both sexes. Fed by both sexes. Semialtricial young leave nest in 35–40 days.
- **POPULATION** Uncommon.
- **CONSERVATION** Decline in population may be due to loss of nesting sites.



Made of large sticks • lined with twigs bearing green leaves • in tree, usually cottonwood or pine, 25–100 feet above ground • near stream • 2 white or bluish eggs dotted with lavender and yellowish brown, sometimes concentrated on one end, 2.2 inches long.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.4 pounds
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DATE _____ TIME _____ LOCATION _____

Family ACCIPITRIDAE	Species <i>Buteo jamaicensis</i>	Length 19–25 inches	Wingspan 46–58 inches
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RED-TAILED HAWK

This hawk is found in more habitats than any other North American *buteo* and, consequently, is the most common hawk on the continent. This species has five races: a pale pink-tailed Great Plains race known as “Krider’s Red-tailed,” *krideri*; the eastern *borealis*, the southwestern *fuertesi*; the western, *calurus*; and the rare “Harlan’s Hawk” or *harlani*, once considered a separate species, which is very dark with a white-based tail. All adults show a dark brownish mantle in flight and dark brown bar on leading edge of underwing. All juveniles have a dark brown tail with a black band. Because it perches low on woodland edges and along roadsides this is one of the most conspicuous and easily observed hawks.

- **SONG** Harsh descending slurred *keeeeer-r-r*. Also rasping hissing screamy, *p-s-s-s, kree-kree ree-e-e*.
- **BEHAVIOR** Across its vast range takes a wide variety of prey Eats small to medium mammals, reptiles, amphibians, grasshoppers, spiders, earthworms, crustaceans, some fish, and an occasional small bird or bat.. Carries small prey to perch; partially eats large prey on ground.
- **BREEDING** Monogamous; may mate for life. Solitary nester.
- **NESTING** Incubation 28–35 days by both sexes; more by female. Semialtricial young stay in nest 42–46 days. Fed by both sexes. 1 brood per year.



EASTERN ADULT BOREALIS



HARLAN'S HAWK



KRIDER'S RED-TAILED

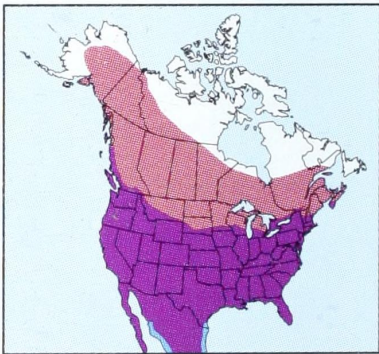
Similar Birds



ROUGH-LEGGED HAWK
Smaller bill and feet; feathered legs; white rump; white tail with multiple dark bands; black belly (light morph).



SWAINSON'S HAWK
Multiple tail bands; dark flight feathers; pale wing linings; brown chest (light morph).



Flight Pattern



Several rapid strong wing beats followed by a glide. Soars well on thermals and sometimes hangs on updrafts.

- **POPULATION** Very common. Some decline due to habitat loss.
- **CONSERVATION** Some eggshell thinning. Many still killed illegally, and some are accidentally killed by cars.

Nest Identification



Sticks and twigs • lined with inner bark strips, evergreen sprigs, and green leaves • in crotch of large tree, on cliff ledge, or on artificial structure, as high as 120 feet above ground • built by both sexes • 2–3 white or bluish white eggs sometimes spotted brown, 2.4 inches long.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 2.3 pounds
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DATE _____ TIME _____ LOCATION _____

Family ACCIPITRIDAE	Species <i>Buteo regalis</i>	Length 22–28 inches	Wingspan 56 inches
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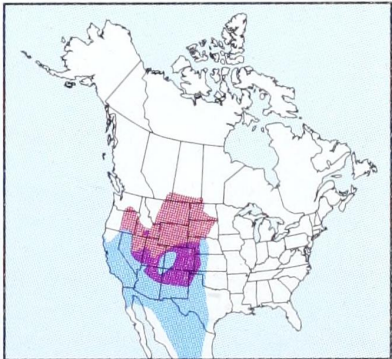
FERRUGINOUS HAWK

One of the largest and most powerful buteos, this hawk is true to its Latin species name, meaning kingly or royal. This bird has light, dark, and reddish morphs; the light morph is the most common. Dark morphs are dark rufous to dark brown overall. In flight all three hold the long pointed wings in a dihedral, and show a white patch at base of primaries from above. The light morph appears almost completely white from below except for the reddish legs, which form a rusty red V beneath the body.

- **SONG** Alarm call of *kree-a* or *kaah kaah*.
- **BEHAVIOR** Eats mainly ground squirrels; spots them from perch, flies high in air, and swoops down to catch them. Also hunts prairie dogs, rabbits, small rodents, snakes, lizards, small to medium birds, and large insects. One of the few large hawks that hovers. Prefers open country, where it often hunts from low perches on fence posts, utility poles, or small trees.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 31–33 days by both sexes, but female does more. Semialtricial young stay in nest 40–50 days; for first 21 days female stays on nest while male hunts, then both sexes hunt. First flight at 38–50 days. 1 brood per year.
- **POPULATION** Uncommon to fairly common. Rare to casual in migration or winter to states bordered by the Mississippi River and occasionally Florida.



Similar Birds	
	ROUGH-LEGGED HAWK Dark morph has banded tail with broad dark subterminal band; no rusty leggings.
	"KRIDER'S" RED-TAILED HAWK Juvenile is shorter; more rounded wings; dark subterminal tail band to tip; unfeathered tarsus.



Flight Pattern	
Quarters back and forth close to ground; alternates several deep flaps with glides similar to Northern Harrier. Soars on thermals and hovers.	

Nest Identification	
Shape	Location
Sticks and debris • lined with finer materials, including cow dung • usually on top of tree, 6–50 feet above ground; in treeless areas may build on cliffs or ground • built by both sexes • 2–6 pale bluish white eggs blotched with pale to dark browns and buffs; between spherical and elliptical, 2.5 inches long.	

Plumage Sexes similar	Habitat	Migration Migratory	Weight 2.3 pounds
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DATE _____ TIME _____ LOCATION _____

Family ACCIPITRIDAE	Species <i>Buteo lagopus</i>	Length 18–24 inches	Wingspan 48–56 inches
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ROUGH-LEGGED HAWK

Named for the feathered shanks of its legs, this big high-soaring hawk of the open country often is seen perched on fence posts or dead trees. It flies low on long, thin pointed wings and is one of the few large hawks that regularly hovers. In flight the light morph's long grayish white tail with a broad dark subterminal band and white tail coverts contrast sharply with its black belly and dark back.

• **SONG** Usually silent in winter. Circling pairs in breeding season give melancholy whistle.

• **BEHAVIOR** Eats mostly small rodents and large insects. Usually catches prey on ground. Often hunts from low perch or by standing on ground on a mound or other elevation. When hunting in flight, flies low over open vegetation, quartering slowly back and forth, alternately flapping and gliding or hovering before plunging feet-first on prey. Irruptive flights when prey populations crash bring many south in winter.

• **BREEDING**

Monogamous. Pairs have been recorded to remain together for many years.

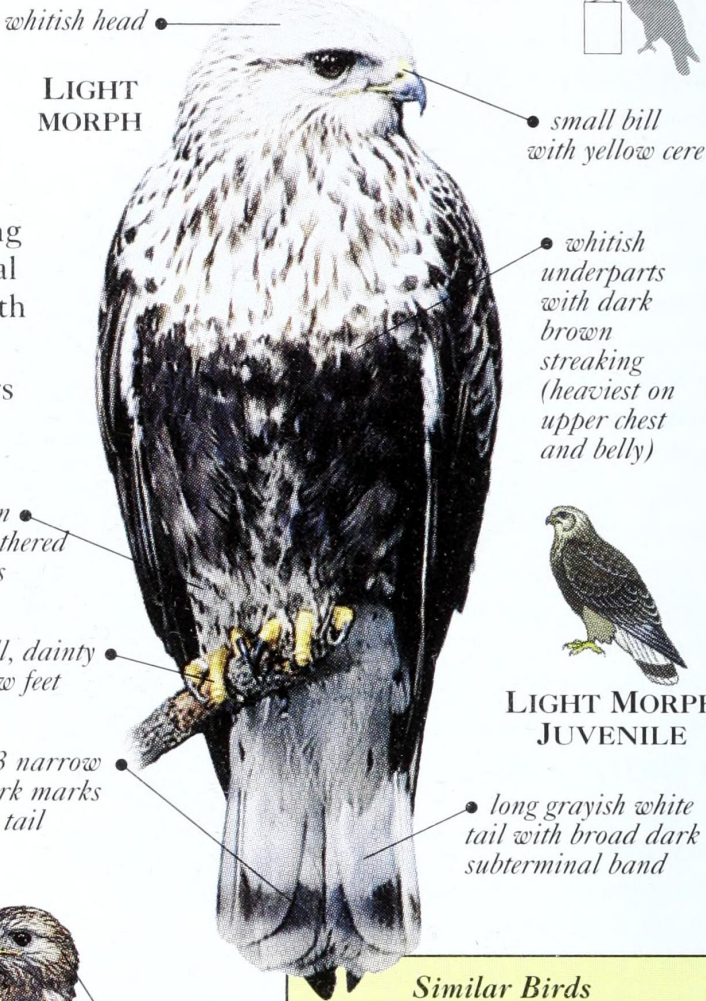
• **NESTING**

Incubation 28–31 days by female. Young leave nest at about 41 days and spend 21–42 days in Arctic after fledging and before migrating south for winter.

• **POPULATION** Common in breeding range; uncommon to fairly common with erratic numbers on wintering grounds.

• **CONSERVATION**

Enormous numbers once were shot in western US because of tameness. In the West many killed while feeding on animal carcasses on highways.



LIGHT MORPH

LIGHT MORPH JUVENILE



DARK MORPH FEMALE

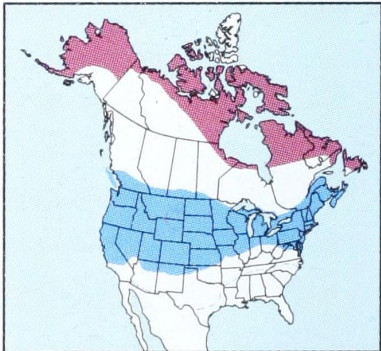
Similar Birds



RED-TAILED HAWK
Dark morph is dark brown overall; rufous tail; shorter wings and tails; smaller bill.



FERRUGINOUS HAWK
Dark morph has whitish carpal crescent on underwing; dark brown overall; brighter rufous on lesser upperwing coverts and tail coverts.



Flight Pattern

Alternates powerful flaps with glides. Hangs in wind and hovers over one spot; somewhat floppy wing beats at times.

Nest Identification

Shape	Location
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Small twigs and plant material; 24–30 inches in diameter • in river valleys, precipices, slopes in raised places • uses nest for several years; each pair can have several nests and use them alternately • 2–3 eggs when food is scarce; 5–7 eggs when food is abundant; blotched, white, or streaked with brown.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.9 pounds
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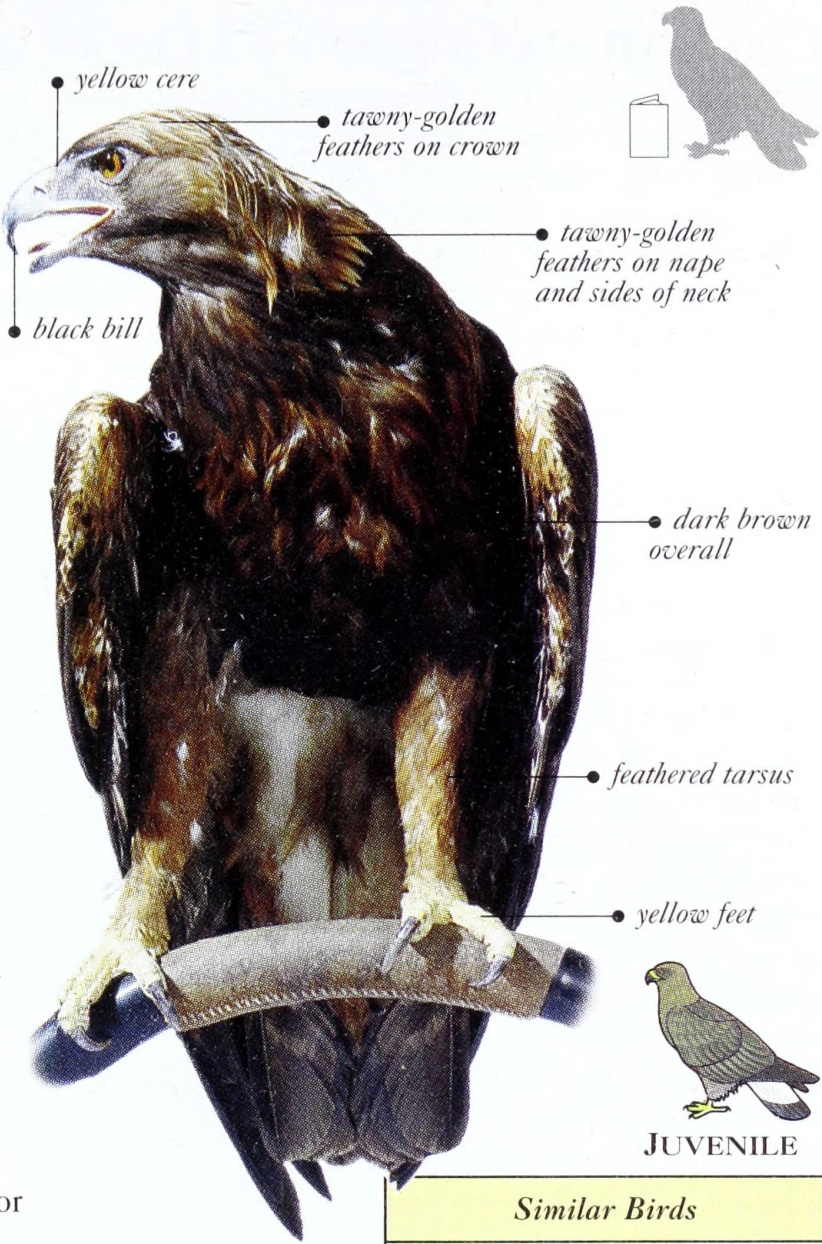
DATE _____ TIME _____ LOCATION _____

Family ACCIPITRIDAE	Species <i>Aquila chrysaetos</i>	Length 33–38 inches	Wingspan 6–8 feet
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GOLDEN EAGLE

Like most other birds of prey, the female Golden Eagle is considerably larger than the male. This large dark eagle is fairly common in the West and rare to uncommon in the East. It has been clocked in a steep glide at 120 miles per hour and is estimated to swoop on prey in dives at more than 150 miles per hour. Juveniles in flight display “ringtail” plumage (a broad white tail band with a terminal band of black) and a broad white patch at the base of the primaries. Large birds of prey require large territories, and home ranges for a pair of this species have been recorded as large as 60 square miles.

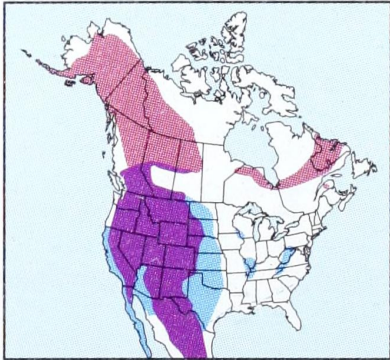
- **SONG** Generally silent. Around nest makes yelping bark, *keya*, and whistled notes. During soaring courtship flight yelps or mews.
- **BEHAVIOR** Favors rabbit, ground squirrel, marmot, grouse, and ptarmigan. Also eats large insects, other small mammals, carrion, and reptiles, including turtles. Has been known to attack full-grown deer, antelopes, and birds as large as Great Horned Owls and cranes. Returns to the same nest yearly or every other year.
- **BREEDING** Monogamous; may pair for life. Solitary nester.
- **NESTING** Incubation 43–45 days by both sexes; female does more. Young stay in nest 66–70 days, dependent on parents for first 30 days. First flight at 65–70 days. Usually has 1 brood every 2 years.
- **POPULATION** Uncommon to rare in the East but fairly common in the West. A total of only 4,000–5,000 pairs were estimated in 1964. Circumpolar.



Similar Birds



BALD EAGLE
Juvenile has larger head; shorter tail; mottled white patches on underparts make tail more blotchy; underwing pattern; bare tarsus.



Flight Pattern

Alternates deep slow powerful wing beats with glides or rides easily on thermals.

Nest Identification

Shape

Location

Sticks woven with brush and leaves • lined with fine material • located 10–100 feet high in trees • 8–10 feet across and 3–4 feet deep • built by both sexes • 2 white or creamy buff eggs marked with brown or reddish brown, 2.9 inches long.

Plumage Sexes similar	Habitat	Migration Some migrate	Weight 3.5 pounds
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DATE _____ TIME _____ LOCATION _____

Family FALCONIDAE	Species <i>Micrastur semitorquatus</i>	Length 22–24 inches	Wingspan 32–35 inches
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COLLARED FOREST-FALCON

A tropical bird, the Collared Forest-Falcon has been known to stray north of Mexico into the lower Rio Grande Valley of southeastern Texas at least one time. This large lanky forest raptor has both a light and dark morph. The light morph shows dark gray barred with white on the underside of its flight feathers. The dark morph is blackish brown overall with white spots on the lower chest, a white-barred belly, and flight feathers like those of the light morph. Light phase juveniles have a dark brown head and auricular crescent, buff-flecked upperparts, dark-brown barring and scalloping on the underparts, and four tail bands. This bird rarely soars; it is more likely to be seen flying close above the canopy or beneath it. When perched the short wings barely reach the base of the tail.

- **SONG** Hollow repeated descending *coh-w, ow-hh*, or *how*. Also laughlike call, *ka-how-ow-ow-ow* or *hoh-hoh-hoh-hoh-hoh-hoh*. Vocal at dawn and dusk.
- **BEHAVIOR** Prefers thickets in solid or broken forests, thick second growth, and scrub. Hunts by direct pursuit and ambush. Feeds on birds, lizards, mammals, and large insects. Flies with agility around trees and runs through understory in pursuit of prey. Vocalizes loudly for extended periods at dawn and dusk.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Breeding biology poorly known; incubation is estimated at 28–34 days by both sexes, but mostly by female. Young semialtricial; brooded by female; stay in nest about



LIGHT MORPH

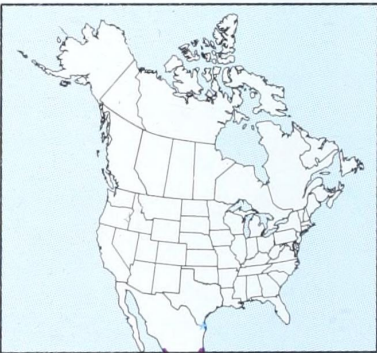
Similar Birds



COOPER'S HAWK
Lacks collar and auricular crescent; has darker gray bands on tail; rusty-barred underparts on adults



- juvenile has heavily streaked underparts.



Flight Pattern



Alternates rapid wing beats with short glides.

Nest Identification

Shape 

Location 

Uses tree cavity already in existence • 2 brown to buff eggs with heavy darker brown mottling.

Plumage Sexes similar	Habitat 	Migration Nonmigratory	Weight 1.2 pounds
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DATE _____ TIME _____ LOCATION _____

Family FALCONIDAE

Species *Caracara plancus*

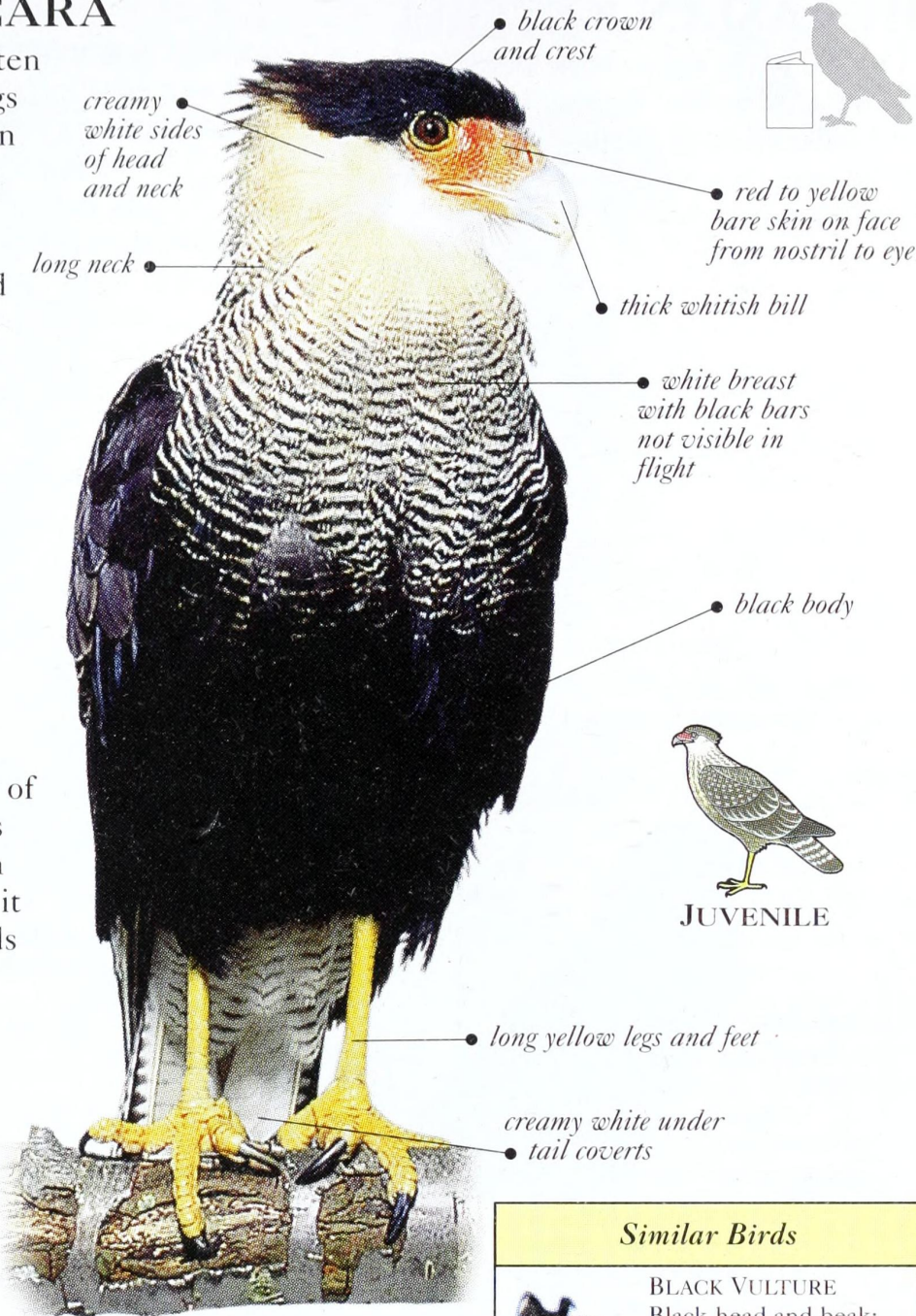
Length 20–25 inches

Wingspan 45–48 inches

CRESTED CARACARA

This large vulturelike raptor often walks on the ground on long legs in search of prey. Its black crown and short crest above the red to yellowish bare skin of the face are distinctive. In flight its flat profile, broad wings, and fanned tail are ravenlike. Flying birds also show white patches at the wing tips, a white head and breast, and a white tail with a broad black terminal band.

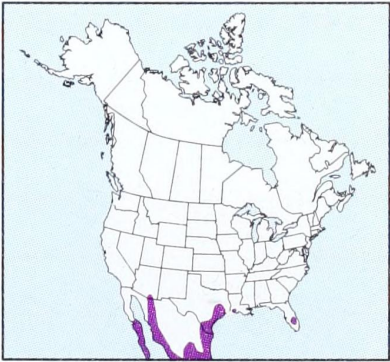
- **SONG** In breeding season makes loud *wick-wick-wick-wick-querrr*, throwing its head backward over its back on the last note. Harsh grating rattle. Usually silent.
- **BEHAVIOR** Makes head-throwing display. Only member of Falconidae that actually collects materials and builds nest. Often scavenges with vultures, where it may dominate the carcass. Feeds on variety of animal material, from large insects, reptiles, mammals, birds, amphibians, and fish to carrion.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 28–33 days by both sexes. Semialtricial young stay in nest 30–60 days. Fed by both sexes. 1–2 broods per year.
- **POPULATION** Fairly common in Texas; rare to casual and local in Arizona; rare in Louisiana; fairly common and local in Florida.



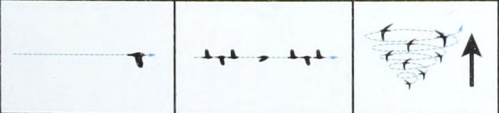
Similar Birds



BLACK VULTURE
Black head and beak; only creamy white on wing tips.



Flight Pattern



Strong steady deep wing beats; often alternates series of wing beats with long to short glides. Sometimes soars on thermals.

Nest Identification

Shape  Location    

Made of sticks, vines, and twigs • lined with fine material • 15–30 feet above ground in palmetto or giant cacti • built by both sexes • 1–4 white or pinkish white eggs marked with browns, rarely unmarked; ovate to broadly oval or subspherical, slightly pointed at one end; 2.3 inches long.

Plumage	Sexes similar	Habitat	 	Migration	Nonmigratory	Weight	2.1 pounds
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DATE _____ TIME _____ LOCATION _____

Family FALCONIDAE	Species <i>Falco tinnunculus</i>	Length 12–16 inches	Wingspan 27–30 inches
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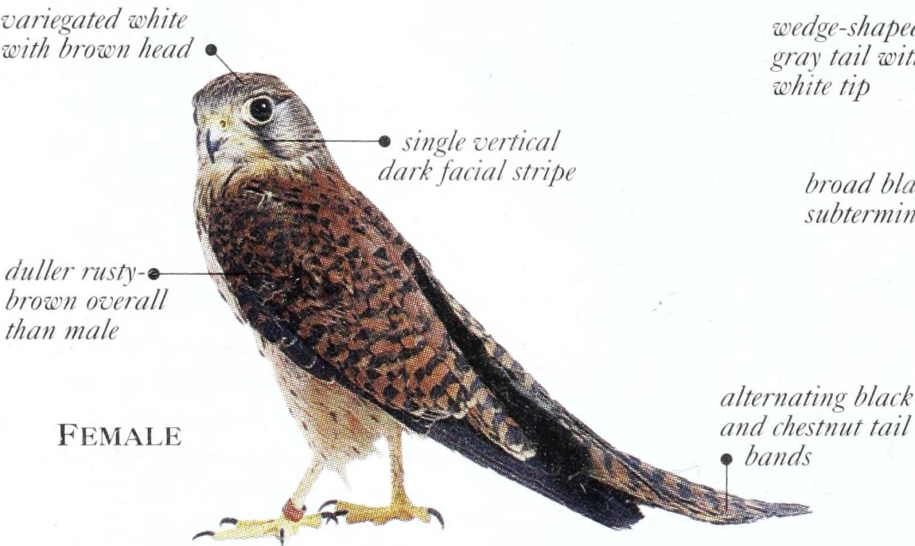
EURASIAN KESTREL

The Eurasian Kestrel can be differentiated from the American Kestrel by its larger size and its single, rather than double, black facial mark and wedge-shaped tail. Years ago in France, this species was trained in falconry to fly at bats. Accidental in winter on the northeast coast, Eurasian Kestrels have been known to travel across the Atlantic Ocean, either by flying or riding on a ship.

- **SONG** Creaking cackling shrill kee-kee-kee call.
- **BEHAVIOR** Feeds primarily on large insects, small rodents, and small birds. Prefers open country where it perches on fence posts, utility poles, and wires while it watches for prey. Often hunts by hovering in one spot over grasses or thickets.



MALE



FEMALE

- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 28–32 days primarily by female. Young stay in nest 30–35 days, fed by both sexes. 1 brood per year.
- **POPULATION** Accidental to casual, primarily in winter on the

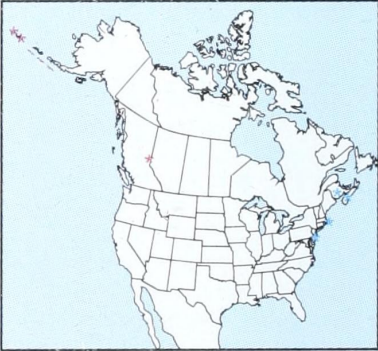
East Coast from the Maritimes to New Jersey and on the West Coast from islands in the Bering Sea to British Columbia.

- **CONSERVATION** Single greatest cause of death is being shot by humans.

Similar Birds



AMERICAN KESTREL
Male has chestnut cap; chestnut nape with black splotch; chestnut tail • female has less-variegated darker cap • both have 2 facial stripes; square to rounded tail; smaller.



Flight Pattern

Flies with rapid wing beats followed by a glide. Soars on thermals and updrafts.

Nest Identification

Shape

Location

Little, if any, nest material • uses abandoned nest of crow or magpie, split or cavity in tree, and ledges on cliffs or buildings • 15–75 feet above ground • 3–6 cream to white eggs blotched heavily with browns and nest-stained, 1.5 inches long.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 6.6 ounces
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DATE _____ TIME _____ LOCATION _____

Family FALCONIDAE	Species <i>Falco sparverius</i>	Length 9–12 inches	Wingspan 20–25 inches
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AMERICAN KESTREL

The smallest most common North American falcon is found all over the continent and north to the tree line in summer. It is sometimes called the Sparrow Hawk, a misnomer as the bird is neither a hawk nor does its diet include a significant amount of sparrows or other small birds. In flight it shows the typical long tail and long pointed wings of a falcon. A bird of the open country, it often is seen perched on wires along roadsides.

• **SONG** Alarm call a loud quick *klee-klee-klee* or *killy, killy, killy*.

• **BEHAVIOR** When perched bobs tail. Hunts rodents and insects from perch or hovers. Also eats bats, small birds, small reptiles, and frogs. Not dependent on drinking water in desert because it extracts water from its diet.

• **BREEDING** Monogamous. Solitary nester. During courtship male brings food and feeds female in the air.
• **NESTING** Incubation 29–31 days by both sexes, mostly by female. Semialtricial young stay in nest 30–31 days, fed by female. Male calls female from nest to feed. 1 brood per year, sometimes 2 in the South.

• **POPULATION** Common.
• **BIRDHOUSES** Readily nests in bird boxes built especially for kestrels. Occasionally attracted to bird feeders to prey on birds.



Similar Birds

SHARP-SHINNED HAWK
Blue-gray upperparts; red-brown streaked and barred underparts; square or notched barred tail; short rounded wings.

MERLIN ♂
Larger; variegated head; lacks facial bars, blue-black tail and back; heavily streaked underparts • male has blue-black wings.

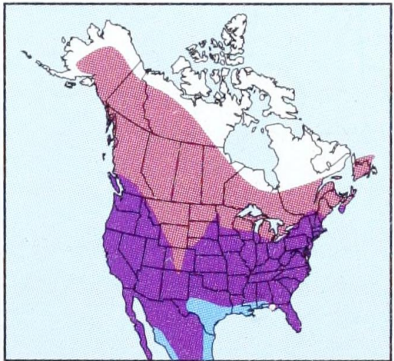
Flight Pattern

Several rapid wing beats followed by a glide; often hovers on rapidly beating wings. Also soars on thermals.

Nest Identification

Shape Location

• **CONSERVATION** Migratory counts suggest recent decline in the Northeast; other populations seem stable. Expanded establishment of nest boxes in some areas, especially along highways, seems to have encouraged recovery.



Little, if any, nest material • in old flicker tree holes, niches in walls, and holes under gables, 12–80 feet above ground • 3–7 white to cream or pale pink eggs, heavily blotched with browns, sometimes unmarked; 1.4 inches long.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 3.9 ounces
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DATE _____ TIME _____ LOCATION _____

Family FALCONIDAE	Species <i>Falco columbarius</i>	Length 11–13 inches	Wingspan 23–26 inches
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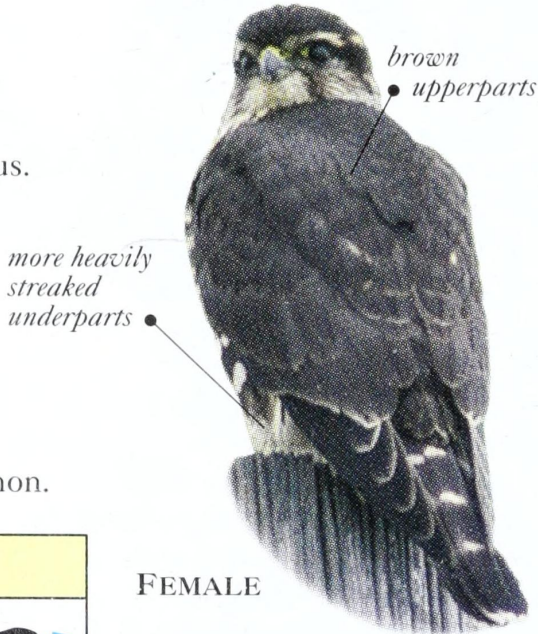
MERLIN

This medium-sized falcon of northern coniferous forests hunts the openings in parklike grasslands, bogs, and shrubby barrens. In flight it shows the distinctive falcon “jiz” of long pointed wings and a long tail with a big-headed, powerful look, and it displays impressive bursts of speed when in pursuit of prey. Geographic variation in color exists, from pale prairie birds to dark Pacific Northwest forms.

- **SONG** *Ki-ki-kee, kek-kek-kek* rapidly repeated.
- **BEHAVIOR** A relatively tame bird, allowing close approach. Defensive of nest; often attacks intruders, including humans. The Merlin flies close to the ground and catches prey with bursts of speed while in pursuit, rather than by diving or hovering. It is a bird that often hunts from an open perch. Primary diet of small birds, mammals, and large insects. May frequent cities in winter.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 28–32 days mostly by female. Semialtricial young stay in nest 25–35 days. Fed by both sexes. 1 brood per year.
- **POPULATION** Uncommon.



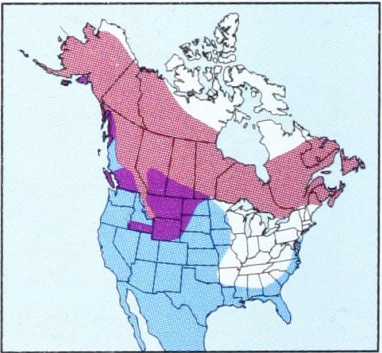
MALE



FEMALE

Similar Birds

-  **AMERICAN KESTREL** ♂
Smaller; bobs tail and hovers; barred rufous back and tail.
-  **PEREGRINE FALCON**
Larger; indistinct barring on tail; dark hood on head extends beneath eye like broad sideburn.



Flight Pattern



Swift direct flight with rapid powerful wing beats.

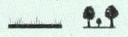
Nest Identification

Shape 

Location 

- **CONSERVATION** Some declines attributed to pesticides and heavy metals in food chain.

Uses old tree nests of crows, magpies, and hawks, relined with bark and feathers
• 15–35 feet above ground • built by female • 2–7 white eggs, some marked with reddish brown; short elliptical, 1.6 inches long.

Plumage Sexes differ	Habitat 	Migration Most migrate	Weight 5.7 ounces
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DATE _____ TIME _____ LOCATION _____

Family FALCONIDAE	Species <i>Falco femoralis</i>	Length 15–18 inches	Wingspan 40–48 inches
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APLOMADO FALCON

This raptor is similar in size to the Prairie Falcon. The Aplomado Falcon formerly ranged into the southern US along the Mexican border from Texas to Arizona, and was fairly common in open desert and grasslands in the summer prior to the 1880s. By the early part of the 20th century it had all but disappeared. Continuing casual records probably represent birds from the population that still can be found near Chihuahua, Mexico. In flight this falcon shows dark underwings and cinnamon-orange thigh “britches” and undertail coverts.

- **SONG** Shrieking *keeh-keeh-keeh* and an abrasive single-note *keeh* or *kiih*.
- **BEHAVIOR** Found in open grasslands, savanna, and marshy habitats, where it often hunts from a perch on a pole, short tree, or shrub. Often lands on the ground. Hovers. Feeds primarily on large insects and small birds, both of which it often catches in flight. Sometimes this raptor will work grassfires, catching prey that is driven from its grassland cover by the flames.
- **BREEDING** Monogamous.
- **NESTING** Possibly 1 brood per year.
- **POPULATION** Casual to rare. Essentially extirpated from US



JUVENILE

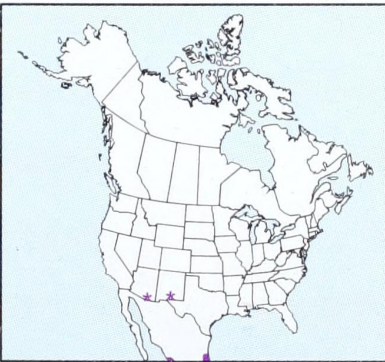
Similar Birds



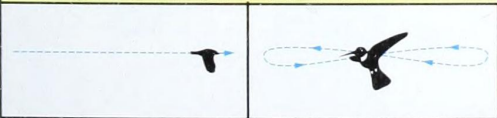
PRAIRIE FALCON
Brown upperparts; streaked whitish underparts; in flight shows pale underwings with black axillaries and dark bar on wing lining.



AMERICAN KESTREL ♂
Much smaller; barred reddish brown back and tail; lacks black on belly and sides.



Flight Pattern



Fast swift direct flight with deep wing beats. Also hovers.

Nest Identification

Shape  Location   

Uses nests of other birds • 7–25 feet above ground in yucca tree • 3–4 white to pink-white eggs, spotted or blotched with browns, 1.8 inches long.

Plumage Sexes similar	Habitat 	Migration Nonmigratory	Weight 9.2 ounces
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DATE _____ TIME _____ LOCATION _____

Family FALCONIDAE	Species <i>Falco rusticolus</i>	Length 20–25 inches	Wingspan 48–64 inches
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GYRFALCON

In the ancient sport of falconry Gyrfalcons were traditionally reserved for the king. Today it is the mascot for the United States Air Force Academy. The largest of all falcons, the Gyrfalcon makes Arctic seashores, rivers, and islands its home. A heavy, powerfully built falcon with a long tapered tail and broad wings, it has three color morphs: gray, dark sooty brown, and a white morph that has no face or tail patterns. Upperparts range from white to dark brownish gray. Intermediates occur, and adults of all morphs have a bright yellow cere, legs, feet, and eye ring.

• **SONG** Alarm call is deep harsh *hyaik-hyaik-hyaik*, *kack-kack-kack*, or *kyek-kyek-kyek*.

• **BEHAVIOR** Eats mostly birds such as ptarmigans, grouse, gulls, alcids, gulls, jaegers, ducks, and some small birds. The larger female takes Arctic ground squirrels, and both sexes take lemmings and weasels.

GRAY MORPH



slightly blunted
thick-based wings

yellow eye
ring
yellow
cere

whitish
underparts with
heavy to light
mottling



DARK
MORPH

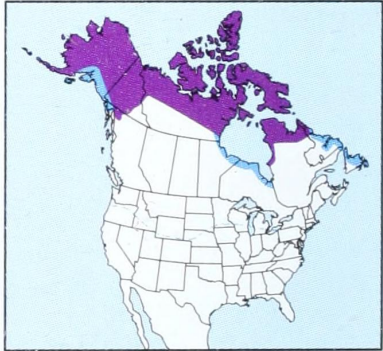
yellow legs and feet

Similar Birds



PEREGRINE FALCON
Smaller; helmeted
appearance with
mustache; more pointed
wings; shorter tail.

- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 28–36 days, mostly by female. Semialtricial young stay in nest 46–56 days, fed by both sexes. 1 brood per year.



Flight Pattern

Slow powerful steady wing beats, often alternating with swift glides; may soar on thermals.

Nest Identification

Shape

Location

- **POPULATION** Rare over entire range. Some winters bring birds as far south as central US.
- **CONSERVATION** Protected by law and may not be kept without a permit.

Sometimes uses old cliff and tree nests of Rough-legged Hawk or raven • on tall cliffs or ledge with protective overhang • 3–8 pale yellow, white, or buff eggs finely spotted with dark red; short elliptical, 2.3 inches long.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 2.6 pounds
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DATE _____ TIME _____ LOCATION _____

Family FALCONIDAE	Species <i>Falco peregrinus</i>	Length 16–20 inches	Wingspan 43–46 inches
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PEREGRINE FALCON

A peregrine in a stoop is one of the fastest birds in the world, reaching speeds of 175 mph or more.

• **SONG** Usually silent. On breeding grounds makes loud *witchew, witchew, witchew*. When disturbed gives loud repeated *cack, cack, cack*.

• **BEHAVIOR** Prefers open areas with good vantage points on which to perch, often near water. Feeds almost exclusively on birds it takes in the air after a steep swift dive from above them. Wanders widely after nesting season, following prey south as far as southern South America. Faithful to nesting sites and aeries, some of which have been used by generations of peregrines for centuries. Lives on buildings in large cities.

BREEDING

Monogamous. Solitary nester.

• **NESTING** Incubation 28–32 days mostly by female. Semialtricial young stay in nest 35–42 days. Fed by both sexes. 1 brood per year.

• **POPULATION** Common to fairly common on tundra; fairly common in migration; uncommon to rare as breeding bird in US. Increasing since continental lows suffered in 1960s and 1970s.

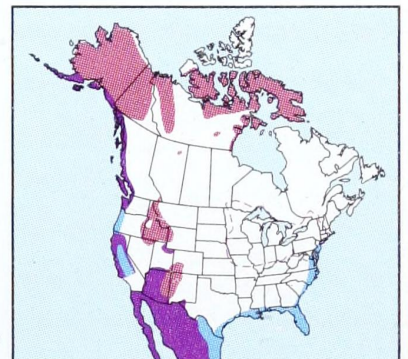
• **CONSERVATION** Federally listed as threatened. Regulation of DDT along with captive breeding and release program have sparked comeback.



JUVENILE

Similar Birds

- MERLIN** ♂
Smaller; heavily streaked underparts; pale face with narrow mustache mark.
- GYRFALCON**
Much larger; more uniform and paler coloration; pale head with thin mustache mark.
- PRAIRIE FALCON**
Paler overall; light brown upperparts; whitish underparts streaked with heavy brown spots; whitish face and supercilium; dark brown postocular stripe; thin mustache; brown barred tail; black axillars and inner wing linings.



Flight Pattern



Direct flight with rapid wing beats like a pigeon.

Nest Identification

Shape Abandoned nests

Location

Made of debris on ledge • lined with grass • mostly on cliffs in southern US; also in hollows of old trees or open tops of cypress, sycamore, or cottonwood, 50–90 feet above ground • rarely uses old tree nest or cavity • built by female • 2–6 cream or buff eggs, heavily marked with brown and red, 2.1 inches long.

Plumage Sexes similar	Habitat	Migration Some migrate	Weight 1.3 pounds
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DATE _____ TIME _____ LOCATION _____

Family FALCONIDAE	Species <i>Falco mexicanus</i>	Length 15–19 inches	Wingspan 40–42 inches
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PRAIRIE FALCON

Found on open prairies and grasslands with suitable cliffs, bluffs, and outcroppings for nesting sites, this bird's dusty sandy browns blend with the landscape. It is paler overall than the similar-sized Peregrine Falcon, whose range it overlaps in the West. In flight the "armpits" are blackish on axillaries and inner wing linings. Juveniles are darker above than adults and more heavily streaked below.

• **SONG** Mostly silent. Common alarm or territorial cackling call is shrill yelping *kik-kik-kik* or *kek-kek-kek*.

• **BEHAVIOR**

Ledge display and spectacular aerial displays in courtship. Often perches on rocks, ledges, posts, or utility poles while scanning for prey. Overtakes birds in flight with rapid bursts of speed or in a dive from above. Eats primarily small birds, small mammals, and large insects. Nests in mountains as high as 10,000 feet and descends in winter to foothills and prairies.

- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 29–33 days, mostly by female. Semialtricial young stay in nest 31–42 days. Fed by both sexes. 1 brood per year.
- **POPULATION** Uncommon to fairly common. Declining in Utah, western Canada, and agricultural California.

• **CONSERVATION** The Prairie Falcon has experienced some population declines which are for the most part attributed to disturbances from increasing human encroachment.



JUVENILE

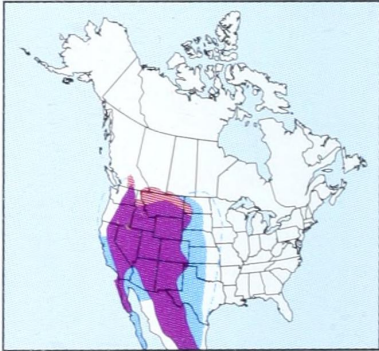
Similar Birds



PEREGRINE FALCON
Adults slate-blue upperparts; darker head, helmeted appearance; in flight lacks black wing pits.



MERLIN ♂
Smaller • male has blue-gray back; more heavily streaked underparts; more contrasting barring in tail; lacks black in wing pits.



Flight Pattern	
Swift flight with rapid wing beats. Sometimes alternates several rapid wing beats with glide.	

Nest Identification	
Shape	Location

On cliff ledge, occasionally in rock crevice • abandoned nests • always facing open habitat • 4–5 white eggs, heavily marked with brown and purple; short elliptical and subelliptical, 2.1 inches long.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 1.2 pounds
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DATE _____ TIME _____ LOCATION _____

Family CRACIDAE	Species <i>Ortalis vetula</i>	Length 22 inches	Wingspan 24–28 inches
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PLAIN CHACHALACA

The only chachalaca that reaches North America, this bird mostly lives in trees but flies to the ground for dust baths. Flocks of 4–20 feed together peacefully; however, when alarmed they half fly, half hop up through the trees with their crests raised high, tails spread wide, and small wings beating laboriously. This bird is noisy all year, but especially during breeding season and particularly at dawn and dusk, with multipitched choruses within and between flocks scattered across wooded thickets.

• **SONG** Cry of single bird is *cha-cha-lac*, but when flock joins chorus, “chachalaca” may be clearly heard over and over.

• **BEHAVIOR** Feeds mostly in trees but sometimes on ground. Eats berries, especially hackberries; fruits, including wild grapes and figs; seeds; green leaves; buds; and insects. Moves easily through dense vegetation and hops, glides, and flies from branch to branch within boll of trees. Glides between trees or across roads on short rounded wings with its long tail spread.

• **BREEDING** Monogamous. Social.

• **NESTING** Incubation 22–27 days by female. Precocial young stay in nest 3–4 days and flutter out of nest onto surrounding branches. Fed by regurgitation by both parents. 1 brood per year.

• **POPULATION** Common but somewhat secretive except for vocalizations in limited US range in lower Rio Grande Valley of Texas. Introduced on Sapelo Island, Georgia. Common and widespread in Mexico.

Flight Pattern



Several rapid stiff wing beats followed by a short glide on spread wings and fanned tail.

Nest Identification

Shape  Location 

- **FEEDERS** Will come to feeders with fruits and seeds, also to water elements.
- **CONSERVATION** Killed for food in Mexico and other parts of range south of US-Mexican border.



Frail structure of sticks and leaves • lined with green leaves • in fork in dense bush or tree, 4–20 feet above ground • 2–4 creamy or dull white eggs, 2.4 inches long.



WINTER PLUMAGE

Plumage Sexes similar	Habitat 	Migration Nonmigratory	Weight 1.3 pounds
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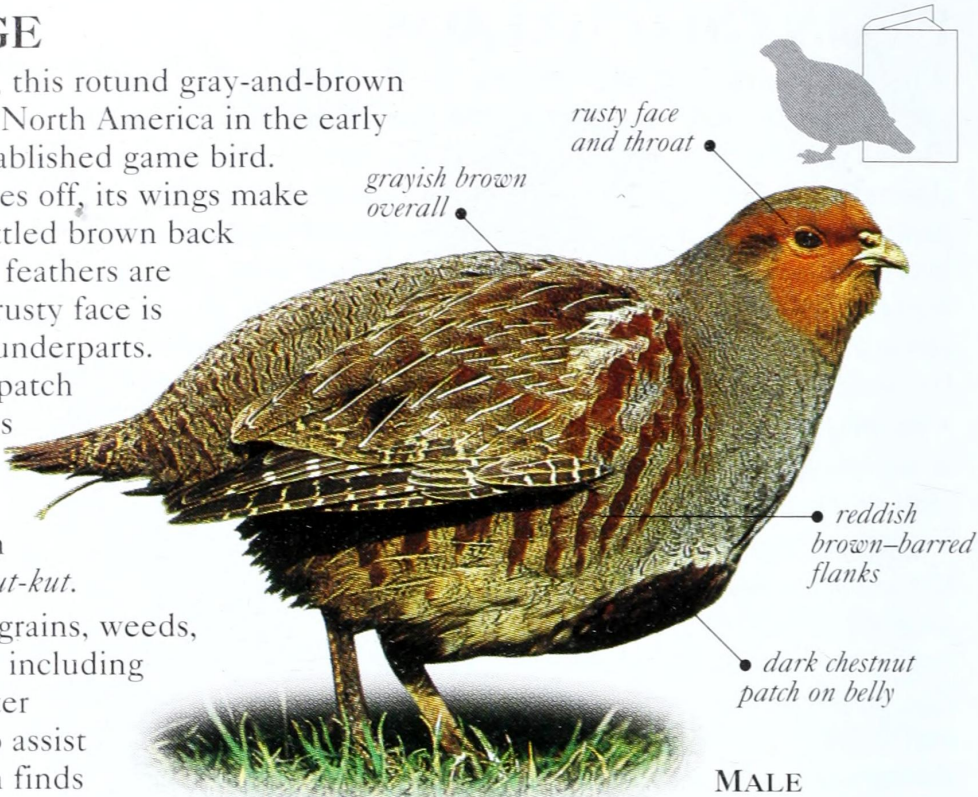
DATE _____ TIME _____ LOCATION _____

Family PHASIANIDAE	Species <i>Perdix perdix</i>	Length 12 inches	Wingspan 18–22 inches
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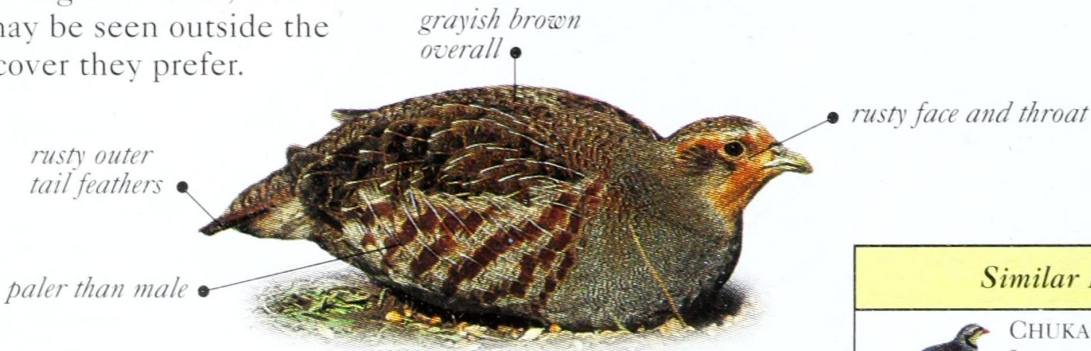
GRAY PARTRIDGE

Originally a native of Eurasia, this rotund gray-and-brown partridge was introduced into North America in the early 1900s and is now a widely established game bird. When this ground dweller takes off, its wings make a whirring sound, and the mottled brown back and rufous-chestnut outer tail feathers are visible. The white bill in the rusty face is framed by vermiculated gray underparts. Females may lack a chestnut patch on the belly, when present it is smaller than in the male.

- **SONG** Low grating *kee-ah* or *keep-keep* or *keee-UCK*. When alarmed or excited, *kuta-kut-kut-kut*.
- **BEHAVIOR** Eats seeds of grains, weeds, and grasses, as well as insects, including grasshoppers and beetles. Water source is dew. Requires grit to assist gizzard in grinding food; often finds this grit in gravel roads, where birds may be seen outside the dense cover they prefer.



MALE



FEMALE

Pairs and family groups in summer; coveys of 15–20 birds in winter. Prefers to walk rather than fly.

- **BREEDING** Monogamous.
- **NESTING** Incubation 21–26 days mostly by female. Precocial young led from nest by both sexes after hatching; tended 13–15 days until first flight. 1 brood per year.
- **POPULATION** Introduced and established. Common but declining in part of range.
- **CONSERVATION** Managed for legal harvesting during hunting seasons. Many killed by mowing of fields and in collisions with utility wires, fences, and automobiles.

Flight Pattern

Flies with rapid stiff wing beats followed by a glide.

Nest Identification

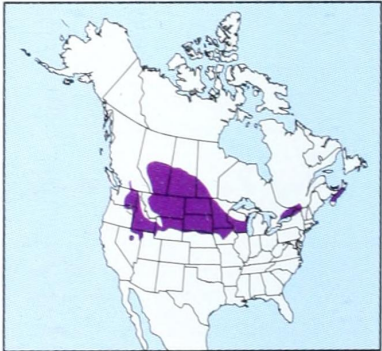
Shape

Location

Lined with weed stems, dead grasses, and a fine inner layer of soft leaves, grasses, and feathers • in wild grass, hayfield, or grain field, within 24–50 feet of field edge or along fencerows or roadsides • built by female while male stands ground • 5–20 olive or white eggs; subelliptical to short oval or short pyriform, 1.4 inches long.

Similar Birds

CHUKAR
Larger; reddish bill and legs; sandy or gray-brown upperparts; white-buff cheeks; prominent black line extends across forehead through eyes; dark bars on sides and flanks
• western range.



Plumage Sexes differ	Habitat	Migration Nonmigratory	Weight 14 ounces
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DATE _____ TIME _____ LOCATION _____

Family PHASIANIDAE

Species *Phasianus colchicus*

Length 21–36 inches

Wingspan 32 inches

RING-NECKED PHEASANT

First introduced as a game bird in California in 1857 and then in larger numbers elsewhere, the Asian Ring-necked Pheasant is one of the most widely distributed and most popular birds among hunters; thousands are harvested annually. The male has distinctive mottled brown plumage; a long, pointed tail; fleshy red eye patches; and a head that ranges in color from a glossy dark green to a purple hue.

• **SONG** When alarmed utters hoarse croaking notes. Male makes loud piercing double squawk *kok-cack*.

• **BEHAVIOR** Gregarious, forming flocks (sometimes large) in autumn and maintaining them into spring. Runs swiftly with tail cocked. Strong flight, rising off ground at steep angle with loud whirring takeoff.



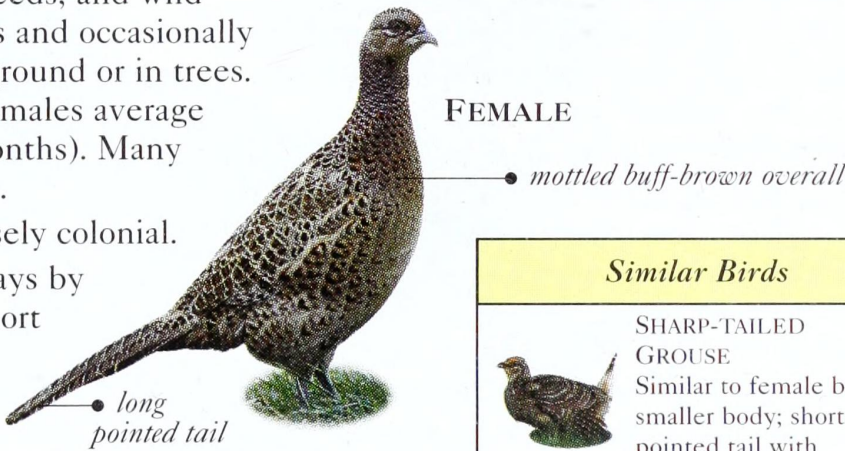
In spring eats mostly plant-based diet, including grains, weed seeds, acorns, pine seeds, and wild berries. Also eats variety of insects and occasionally takes mice and snails. Roosts on ground or in trees. Adults often have short life span (males average 10 months; females average 20 months). Many young do not live beyond autumn.

• **BREEDING** Polygamous. Loosely colonial.

• **NESTING** Incubation 23–25 days by female. Precocial young can fly short distances at 7 days. Tended by female 35–42 days but feed themselves. 1 brood per year.

• **POPULATION** Common to fairly common. Some eastern populations decreasing.

• **FEEDERS** Drawn to feeders with corn or small grains scattered on ground.



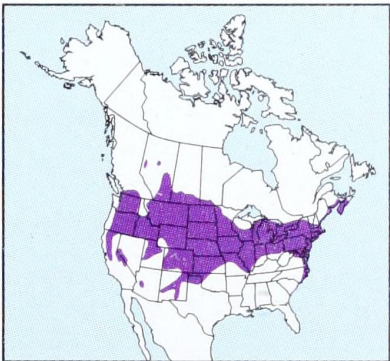
FEMALE

Similar Birds



SHARP-TAILED GROUSE
Similar to female but smaller body; shorter, pointed tail with white sides; barred whitish underparts; feathered tarsus.

• **CONSERVATION** Managed as game bird in North America. Some populations may not be self-sustaining, but occasional releases from captivity help maintain population. Never successfully established in the South despite many attempts.



Flight Pattern

Swift direct flight with shallow rapid wing beats. Often alternates several quick wing strokes with short glides.

Nest Identification

Shape Location

Lined with grass and weeds • usually on ground in shallow natural depression or one made by female • in grasses, hedgerows, grain fields, and brushy ditches • built by female • 5–23 but usually 10–12 (large clutches occur when 2 hens lay in same nest) dark green-buff or rich brown-olive eggs; oval to short oval, 1.6 x 1.3 inches.

Plumage Sexes differ

Habitat

Migration Nonmigratory

Weight 2.9 pounds

DATE _____ TIME _____ LOCATION _____

Family PHASIANIDAE	Species <i>Bonasa umbellus</i>	Length 17 inches	Wingspan 22–25 inches
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RUFFED GROUSE

Both the male and female Ruffed Grouse are dramatic, not only in appearance but in action. In spring the drumming of the male can be heard from half a mile away. The sound is so low-pitched that one might feel as if it is coming from within, and it can take a moment to realize that its source is a distant bird. The female is known for its crippled-bird act that distracts intruders from the nest. This grouse has two morphs: The gray morph is more widespread, while the red morph is plentiful only in the Appalachians and Pacific Northwest.

- **SONG** Short *quit-quit* noises when alarmed.
- **BEHAVIOR** Eats insects, berries, fruits, nuts, seeds of weeds and trees, tree leaf buds, and small reptiles and amphibians. Makes short flights.
- **BREEDING** Promiscuous. Solitary nester. Male exhibits display called drumming; he raises his crest, ruffs, and fan-shaped tail and makes whirring sounds by compressing air between his body and rapidly beating wings. This is done to claim territory and attract females. Normally shy and retiring but can be aggressive and has been known to run at humans in its territory.
- **NESTING** Incubation 21–28 days by female. Precocial young leave nest within hours of hatching and in 10–12 days roost in trees with tending female. Young independent about 84 days after fledging. 1 brood per year.
- **POPULATION** Common. Local populations fluctuate, with



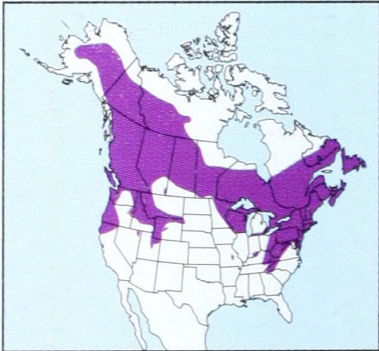
GRAY MORPH

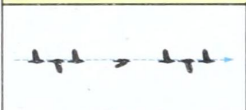


RED MORPH

Similar Birds

-  **SPRUCE GROUSE** ♂
Narrow chestnut band on tail tip • male has red eye comb; sharply defined black breast with white spots or bars on sides • female is dark rusty or grayish brown with white spotting and black barring on underparts.
-  ♀
-  **BLUE GROUSE** ♂
Dark tail with gray terminal band; mottled gray underparts • male has yellow-orange eye combs.
-  ♀



Flight Pattern	
	
Strong rapid flight with rapid wing beats.	

Nest Identification	
Shape 	Location 

- irruptive dispersals into areas that are not normally occupied by grouse.
- **CONSERVATION** Managed as a game bird over much of its range; more killed annually than any other grouse species (3.5–3.7 million).

Lined with small sticks, pine needles, leaves, and feathers • usually near tree trunk or sheltered by shrub, log, boulder, or tree stump • built by female • 8–14 buff eggs, sometimes lightly spotted with browns, 1.5 inches long.

Plumage Sexes similar	Habitat 	Migration Nonmigratory	Weight 1.4 pounds
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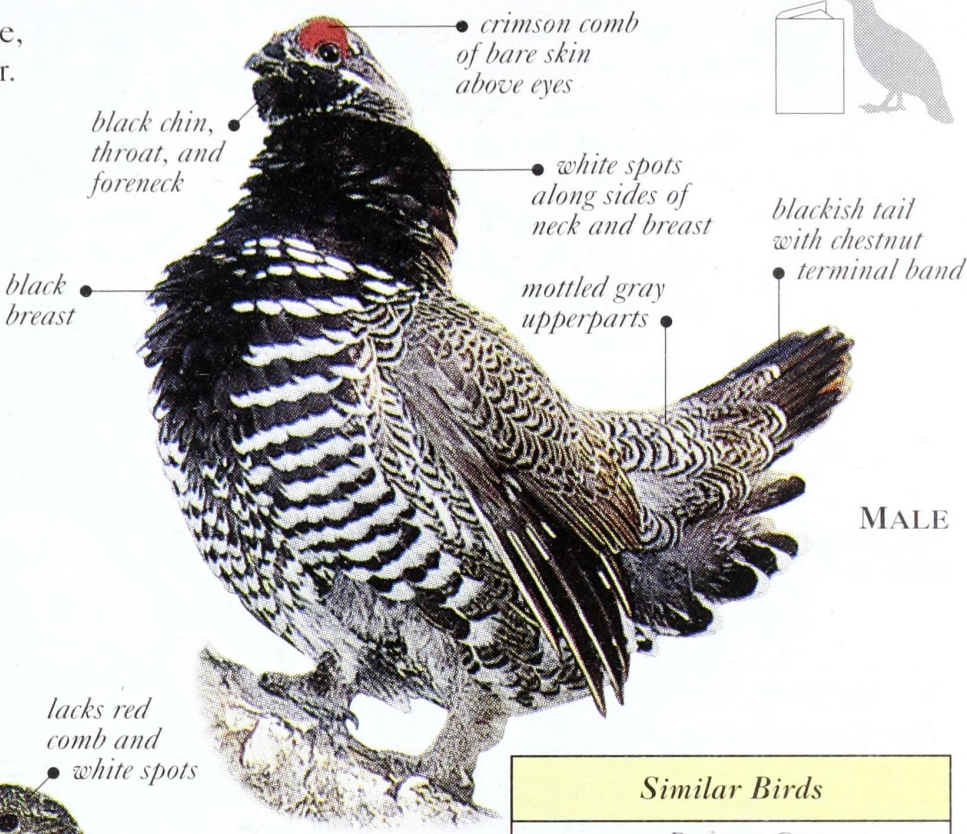
DATE _____ TIME _____ LOCATION _____

Family PHASIANIDAE	Species <i>Falcapennis canadensis</i>	Length 16 inches	Wingspan 23 inches
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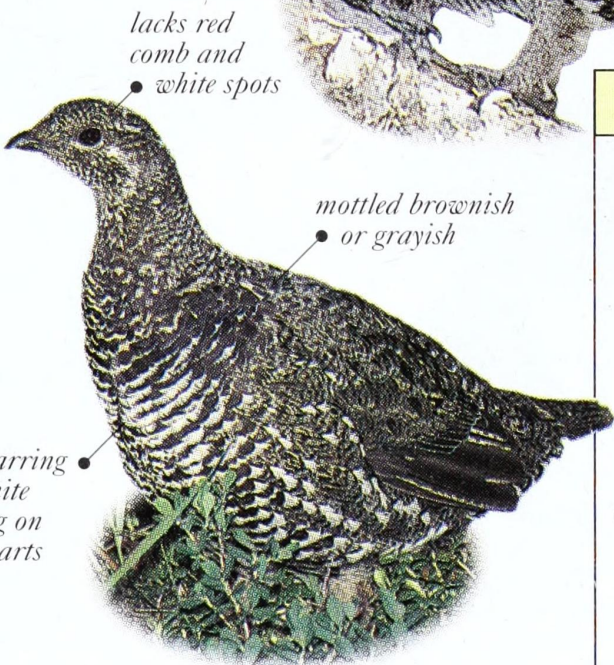
SPRUCE GROUSE

Also known as the Black Grouse, this bird is mainly a tree dweller. Sometimes called a “fool hen” because it seems fearless of man, it is an easy target for hunters. Franklin’s Grouse, a subspecies in the northern Rockies and Cascades, lacks the chestnut band on the tail tip, and the uppertail coverts have white tips. In all other forms the tail has a dark tip and chestnut band. When flying over his territory, the male Franklin’s Grouse makes a “wind cracking” sound with his wings to mark his claim.

- **SONG** Usually silent. Males make low hooting sounds. Makes clucking noise around intruders.
- **BEHAVIOR** Arboreal. Tame. Eats buds and needles of conifers, seeds of weeds and grasses, berries, mushrooms, fern fronds, some insects. Forages along wooded roadsides.
- **BREEDING** Promiscuous. Solitary nester.
- **NESTING** Incubation 17–24 days by female. Precocial young abandon nest upon hatching and can take short weak flights at 7–10 days. Young tended by female. 1 brood per year.



MALE



FEMALE

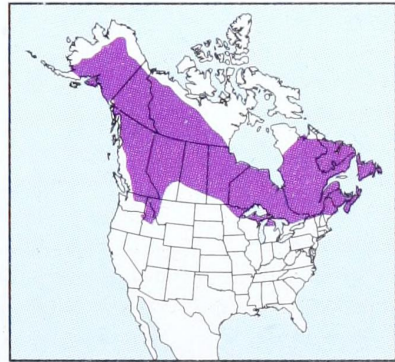
Similar Birds



RUFFED GROUSE
Slightly larger; slight crest; dark subterminal tail band; dark patch on side of neck • male lacks red eye comb; slight crest; pale chin; barred pale breast; finely barred gray or reddish brown tail with dark subterminal band.



BLUE GROUSE
Dusky or sooty in color; broad pale band at tip of blackish tail; mottled gray underparts • male has yellow or orange comb above eyes • western range.



Flight Pattern

Strong rapid flight with series of rapid stiff wing beats alternating with short glides on downward-pointed wings.

Nest Identification

Shape Location

- **POPULATION** Common. Local populations fluctuate. Southern edge of range may have seen slight decline, but still common in far north.
- **CONSERVATION** Managed as a game bird.

Lined with dry grasses, leaves, twigs, and a few feathers • under low branch of spruce or bushes • built by female • 5–10 beautiful cinnamon to pink-buff or cream-buff eggs, usually marked with large rich brown spots and blotches, some thickly and evenly covered with small spots or dots; oval to short oval, 1.7 inches long.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 1.1 pounds
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DATE _____ TIME _____ LOCATION _____

Family PHASIANIDAE	Species <i>Lagopus lagopus</i>	Length 15–17 inches	Wingspan 20–22.5 inches
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WILLOW PTARMIGAN

The ptarmigans are small Arctic birds that change their brown summer plumage to white in winter. Molting birds are often a patchwork of white and brown feathers, and white feathers grow to cover toes for winter. Unlike other ptarmigans, the male Willow stays with the female and staunchly defends its territory; this bird has been known to attack a grizzly bear that came too close to the nest. The male also will attack a human trying to catch one of its chicks. Among the most migratory of grouse, some casually winter as far south as the US–Canada border.

• **SONG** Low throaty rumbling sounds and noisy cackling. In display, male makes harsh barking *go-back-go-back-go-backa-go-backa-go-backa*.

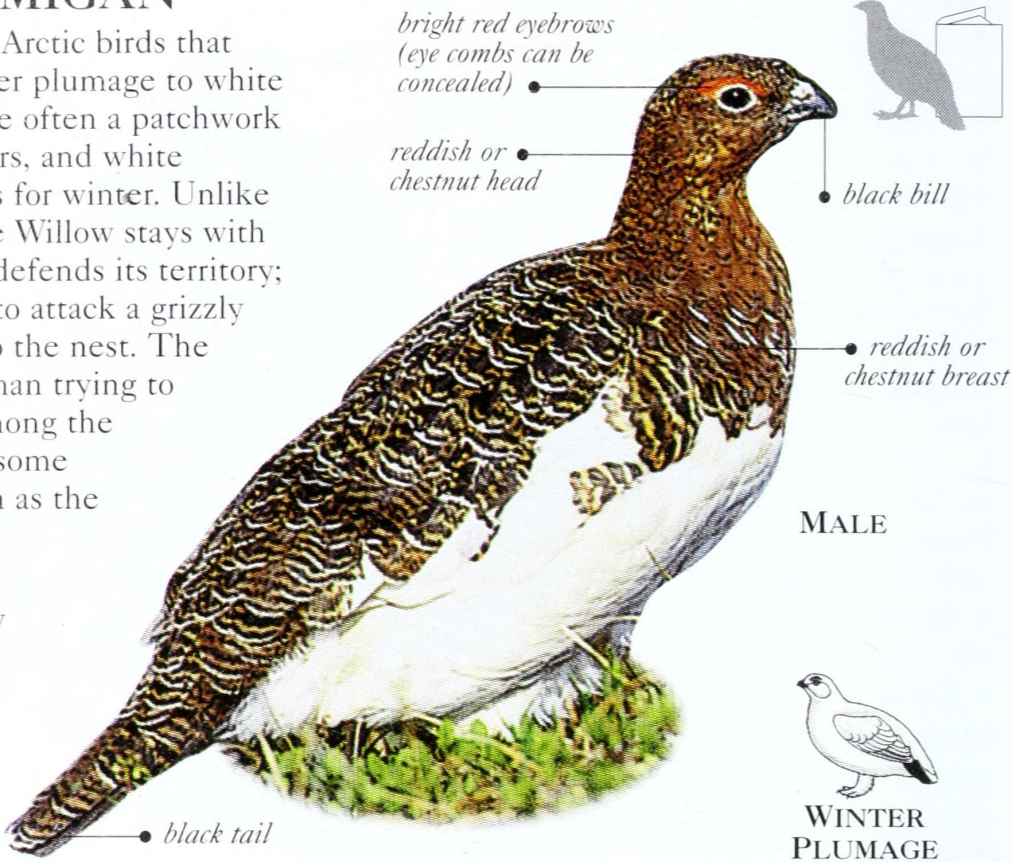
• **BEHAVIOR** In summer eats flower buds and leaves of deciduous trees and shrubs, also fruits and insects. In winter eats catkins, twigs, and deciduous tree and shrub buds. Chicks eat spiders, insects, and caterpillars.

• **BREEDING** Mostly monogamous. In breeding season male chooses open area on ground. As his red combs swell he struts and barks, then flies up and flutters down.

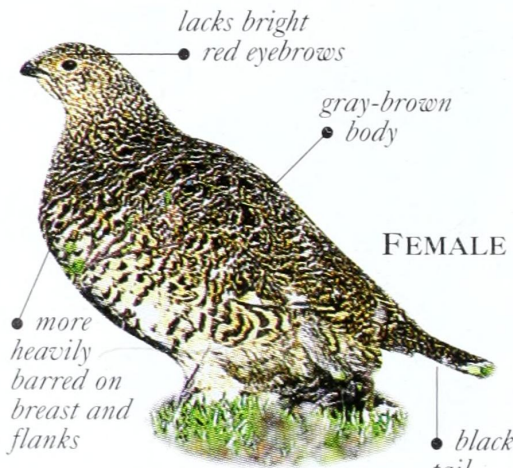
• **NESTING** Incubation 21–22 days by female. Precocial young leave nest upon hatching. First flight at 7–12 days. Tended by both sexes. 1 brood per year.

• **POPULATION** Cycles from abundant to scarce. Generally common over northern range.

• **CONSERVATION** Harvested as game bird.



MALE



FEMALE

WINTER PLUMAGE

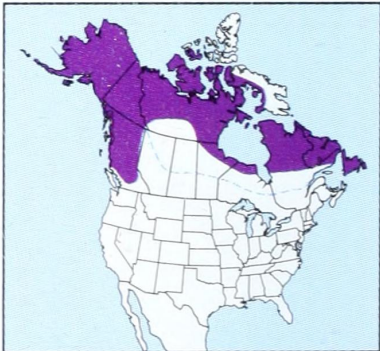
Similar Birds



WHITE-TAILED PTARMIGAN
White tail in all plumages • western range.



ROCK PTARMIGAN
Smaller, more slender body; finely barred brownish gray plumage; less rufous than Willow; smaller bill
• in winter male has black lore and narrow black postocular line.



Flight Pattern

Strong swift rapid but relatively short flights. Alternates rapid stiff wing beats with short glides.

Nest Identification

Shape Location

Lined with grasses and feathers • at base of log, in bunch of grass, bush, or hammock on tundra, beach, or near marsh • built by female • 5–17 yellowish eggs splotched with brown; oval, 1.7 inches long.

Plumage Sexes differ	Habitat	Migration Most do not migrate	Weight 1.3 pounds
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DATE _____ TIME _____ LOCATION _____

Family PHASIANIDAE	Species <i>Lagopus mutus</i>	Length 13–15 inches	Wingspan 17–20 inches
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ROCK PTARMIGAN

This bird is perhaps the hardest of the ptarmigans. It lives year-round in the cold northern mountain regions of Greenland and arctic North America. These birds have been seen flying directly into snowbanks to sleep. As do other species of ptarmigans, the Rock Ptarmigan develops two different plumages to match the predominant colors of the season: white in winter and brown in summer. Winter males retain their red combs and show a black line running from the bill through the eye. Birds experience great and varying amounts of white patches in individual plumages during the sequence of the molt.

• **SONG** Low growls and croaks and noisy cackles.

• **BEHAVIOR** In summer eats spiders, insects, leaves, buds, fruits, seeds, and mosses. In winter finds food on top of snow such as twigs, buds, and seeds. Unusually resilient for a grouse in flight, it can travel up to a mile before alighting.

• **BREEDING** Monogamous. Colonial. Male defends small territory on breeding ground; displays with swollen red combs to attract females and drive away rival males.

• **NESTING** Incubation 21–24 days by female. Precocial young remain in nest 10–16 days, fed by female. 1 brood per year.

• **POPULATION** Common on tundra. Casual in winter south into taiga. Accidental elsewhere.

• **CONSERVATION** Harvested as a game bird.

Flight Pattern



Strong swift takeoff; in flight alternates several quick wing beats with glides on down-bowed wings.

Nest Identification

Shape  Location 

Lined with grass, moss, and a few feathers • built by female • 6–13 buff or cinnamon eggs marked with dark browns and blacks; subelliptical, 1.6 inches long.

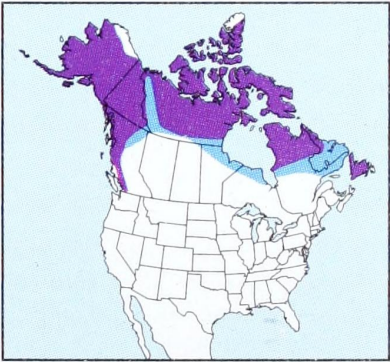


Similar Birds



WILLOW PTARMIGAN
Darker; less gray-brown summer plumage
• male has rufous-brown plumage; larger bill.

WHITE-TAILED PTARMIGAN
White tail; smaller
• western range.



Plumage Sexes differ	Habitat 	Migration Nonmigratory	Weight 14.9 ounces
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DATE _____ TIME _____ LOCATION _____

Family PHASIANIDAE	Species <i>Tympanuchus phasianellus</i>	Length 16–19 inches	Wingspan 21–25 inches
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SHARP-TAILED GROUSE

This gregarious bird performs fascinating extravagant mating rituals in spring at communal leks where the male “dances,” with tail spread, purple neck sac exposed, and quills rattling; and fights with other males. Often seen on prairies in summer, the Sharp-tailed Grouse gets its name from its narrow pointed tail. There is a small stiff crest on the top of the head. In flight adults can be distinguished from female Ring-necked Pheasants by the white feathers on the side of the tail.

• SONG

Chattering noises and a soft *coo-oo*. Utters bold booming notes during breeding season.

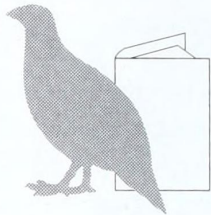
• **BEHAVIOR** Eats grasshoppers, other large insects, rose hips, berries, corn, wheat, other grains, buds, leaves, and flowers; vegetable materials make up more than 90 percent of diet. Inhabits open grasslands in summer, where the lek is located; retreats to brushy shrub-scrub country after breeding season. Strong flier, occasionally traveling 2–3 miles in a single flight.

• **BREEDING** Promiscuous.

• **NESTING** Incubation 21–24 days by female. Young leave nest shortly after hatching. Tended by female. First flight at 7–14 days. 1 brood per year.

• **POPULATION** Uncommon to fairly common over most of range. Has increased in some areas because of timbering practices, but declining in others. Has disappeared from Nevada, New Mexico, and Oregon.

• **CONSERVATION** Managed as a game bird species with regulated hunting seasons and some habitat improvement.



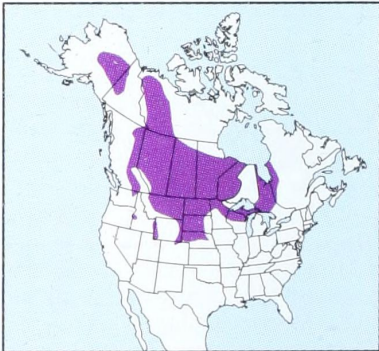
Similar Birds



RING-NECKED PHEASANT ♀
Much longer pointed tail with white barring; no white tail feathers; lacks barring or scaling on underparts.



GREATER PRAIRIE-CHICKEN
Barred underparts; shorter, squared tail.



Flight Pattern

Rises on rapidly beating wings when flushed; then alternates between series of rapid stiff wing beats and glides on slightly drooping wings.

Nest Identification

Shape Location

Lined with grasses, leaves, and feathers • on ground concealed in grass or under shrub, about a half-mile from dancing ground • built by female • 5–17 light brown eggs dotted with reddish brown and lavender, occasionally unmarked; ovate, 1.7 inches long.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 2.1 pounds
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DATE _____ TIME _____ LOCATION _____

Family PHASIANIDAE

Species *Tympanuchus cupido*

Length 17–18 inches

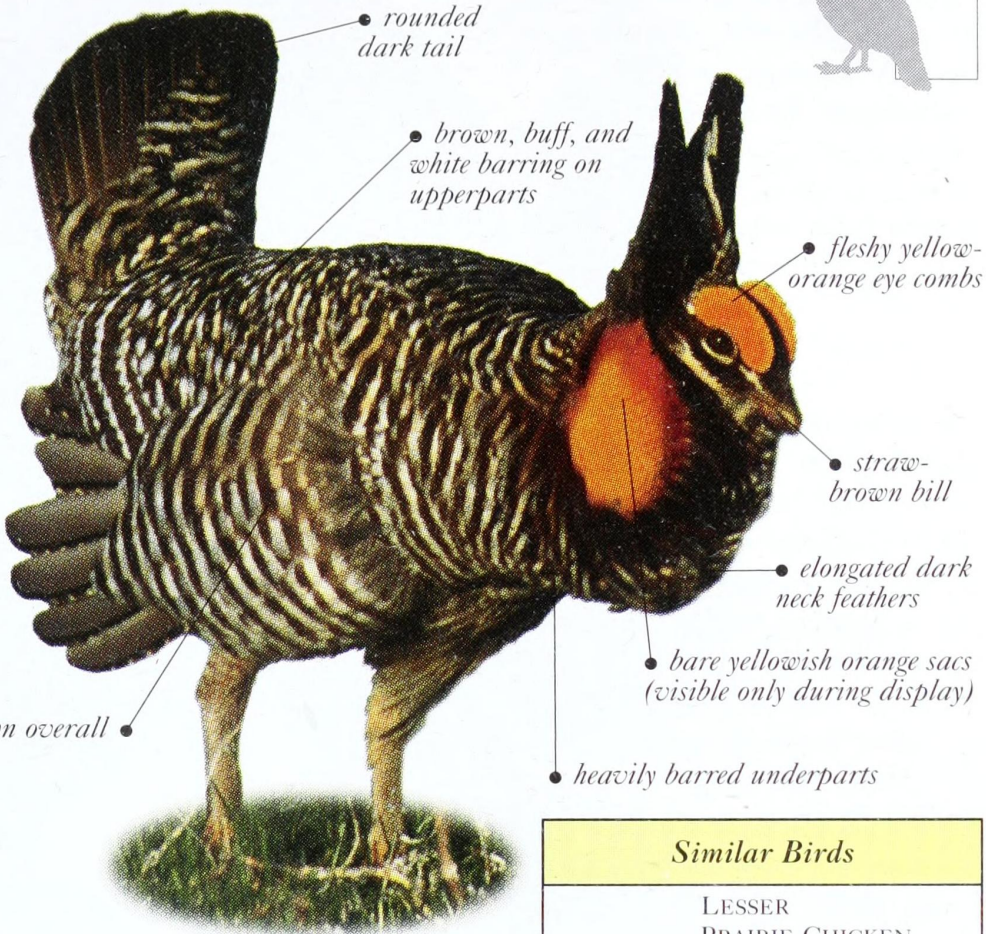
Wingspan 28 inches

GREATER PRAIRIE-CHICKEN

Although both sexes of this chickenlike bird have elongated dark neck feathers, the male has longer ones, which he erects during courtship display. The yellowish orange sacs on the sides of the male's throat, called tympani, are inflated during courtship. Females have barred tails and also have neck sacs, but they are very small and lack color. Both sexes have feathered feet. Once common over most of its prairie grassland range this bird is now uncommon, declining, and local. Some races, like Attwater's prairie-chicken in southeastern Texas, are threatened with extinction. The Heath Hen, which lived along the Atlantic seaboard, became extinct in 1932.

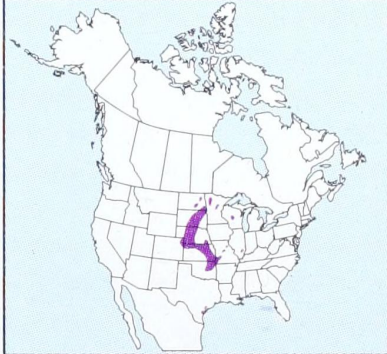
- **SONG** Largely silent except during courtship. Male produces booming sound, *whhoo-doo-dooooohh, zooooo ... wooooo ... youoo*.
- **BEHAVIOR** In summer eats insects, especially grasshoppers; also eats leaves, fruit flowers, shoots, grain seeds, and rose hips. In winter eats acorns, oats, rye, and wheat. Makes short flights.
- **BREEDING** Promiscuous. Males use leks. Dominant males mate with majority of females attracted to booming dances.
- **NESTING** Incubation 23–24 days by female. Precocial young leave nest soon after hatching. First flight at 7–14 days. Tended by female. 1 brood per year.

- **POPULATION** Uncommon to rare; local. Decreasing.
- **CONSERVATION** Endangered. Vulnerable to habitat loss caused by the agricultural plowing of the native grasslands it inhabits.



Similar Birds

- LESSER PRAIRIE-CHICKEN**
Smaller; paler; less heavily barred underparts • male makes higher-pitched courting notes; reddish orange air sac • limited western range.
- SHARP-TAILED GROUSE**
Spotted, scaled underparts; lacks elongated blackish neck feathers; long pointed tail with white borders.



Flight Pattern

Strong rapid flight with series of rapid stiff wing beats alternating between glides on drooping wings.

Nest Identification

Shape Location

Lined with grasses, dead leaves, and feathers • in hayfields, woods, or clearings • built by female • 7–17 olive eggs spotted with dark brown; ovate, 1.8 inches long.

Plumage Sexes similar Habitat Migration Most do not migrate Weight 2.2 pounds

DATE _____ TIME _____ LOCATION _____

Family PHASIANIDAE	Species <i>Meleagris gallopavo</i>	Length 37–46 inches	Wingspan 4–5 feet
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WILD TURKEY

The largest game bird in North America, the Wild Turkey once was so widespread it was considered for the US national emblem. Male turkeys gobble year round, but in spring they are easily startled and will gobble at any abrupt noise. Today this unmistakable symbol of a US national holiday is becoming common again due to conservation efforts and its own adjustments to changes in its original woodland habitat.

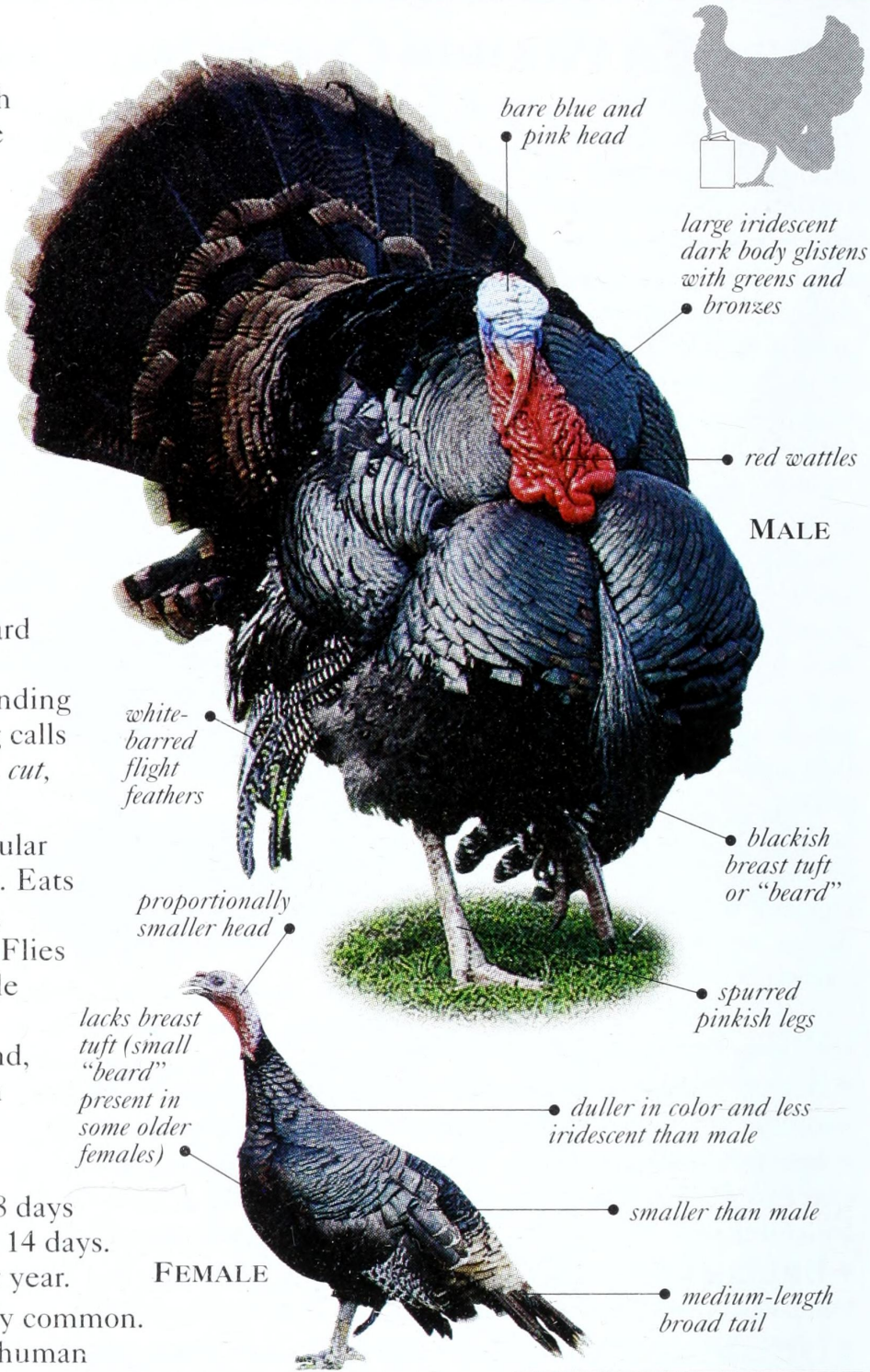
• **SONG** Gobbling may be heard up to a mile away and is easily imitated, with bird often responding to it. Several different clucking calls given by both sexes: *cluk, cluck, cut, putt*, and others.

• **BEHAVIOR** Powerful muscular gizzard can grind hardest foods. Eats nuts, seeds, large insects, frogs, lizards, wild fruits, and grapes. Flies to tree roosts for the night. Male displays by strutting with tail spread, wings drooped to ground, bare skin of head intensified in color, and frequent gobbling.

• **BREEDING** Polygamous.

• **NESTING** Incubation 27–28 days by female. First flight in about 14 days. Tended by female. 1 brood per year.

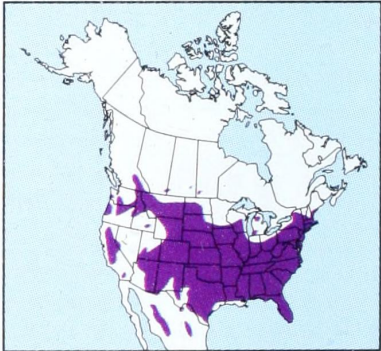
• **POPULATION** Rare to fairly common. Wild birds unlikely in areas of human habitation, though widely domesticated. Increasing.



Flight Pattern	
	
Swift powerful flight for short distances with rapid wing beats and deep strokes; often glides after several series of wing beats.	

Nest Identification	
Shape 	Location 

• **CONSERVATION** Trap and transfer programs have helped reestablish some populations. Increased comeback of blocks of forest interspersed with agricultural areas, as well as wildlife management programs, have helped increase populations.



Lined with a few dead leaves and grass • on ground concealed under shrub or in grass • built by female • 8–20 white to cream or buff eggs, sometimes blotched or spotted with brown or red, 2.5 inches long.

Plumage Sexes differ	Habitat 	Migration Nonmigratory	Weight 16.3 pounds
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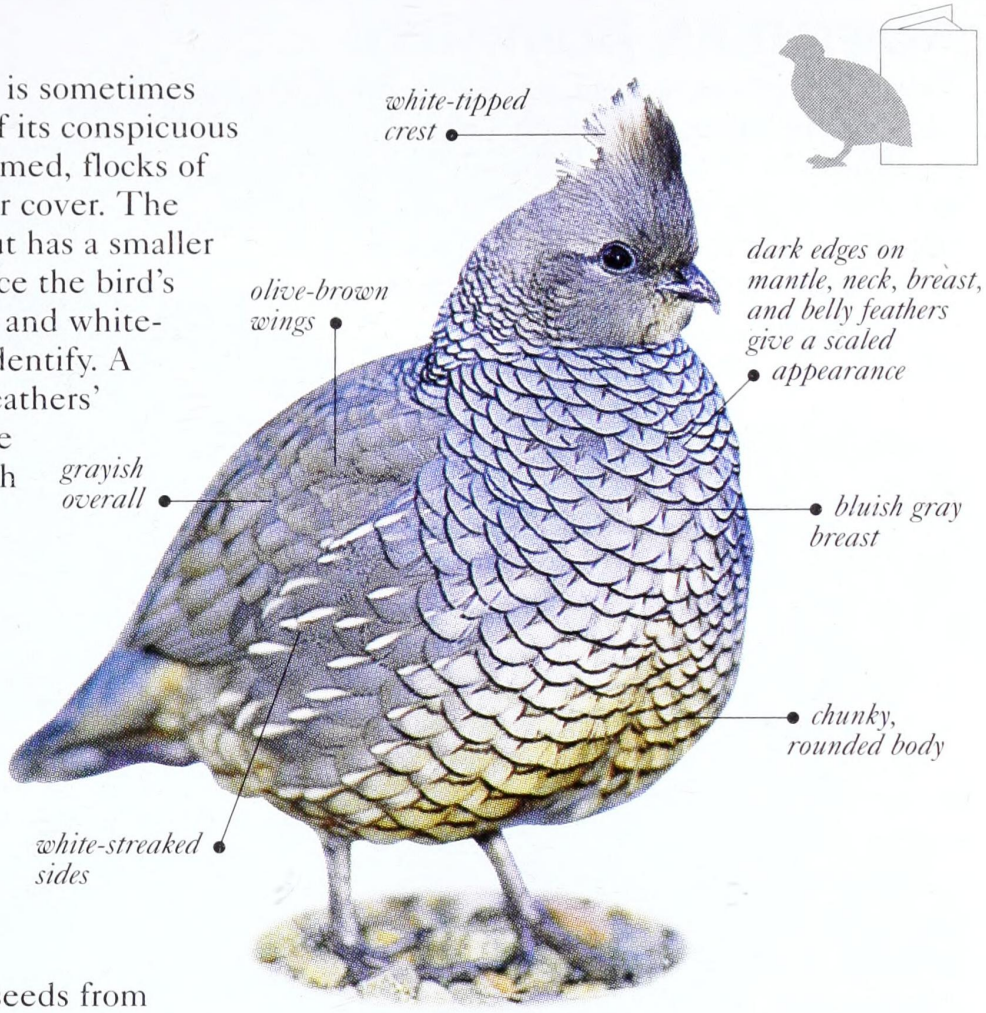
DATE _____ TIME _____ LOCATION _____

Family ODONTOPHORIDAE	Species <i>Callipepla squamata</i>	Length 10 inches	Wingspan 13–14 inches
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SCALED QUAIL

This native of the Southwest is sometimes called “cotton top” because of its conspicuous white-tipped crest. When alarmed, flocks of these birds run into bushes for cover. The female resembles the male but has a smaller buffier crest. Even at a distance the bird’s bluish gray breast and mantle and white-tipped crest make it easy to identify. A close view reveals the body feathers’ tiny dark edging that gives the scaled appearance, upon which the common and scientific names are based. Juveniles are more rufous and appear more mottled than scaly. In southern Texas the male has a dark chestnut patch on the belly.

- **SONG** Most common is a low nasal *chip-CHURR* or *pe-COS* or *wait-UP* with accent on second syllable. Also, other clucking notes.
- **BEHAVIOR** Eats insects; seeds from desert shrubs, cacti, weeds, grasses, and flowers; flower blossoms; and tender shoots. Found in pairs or small groups in spring and summer; at other times forms coveys of 7 to more than 100. Makes daily trips to waterholes or cattle tanks. Spends heat of day under shade of a shrub. Would rather walk or run than fly.
- **BREEDING** Monogamous. Breeding success correlates to amount of rain; may not nest when rainfall is scarce.
- **NESTING** Incubation 22–23 days mostly by female. Young leave nest soon after hatching. Tended by both sexes. First flight at 14–16 days. 1 brood per year.
- **POPULATION** Fairly common in semidesert scrubland east to Texas. Local populations fluctuate. Adversely affected by drought years and exceedingly heavy rain.



Similar Birds

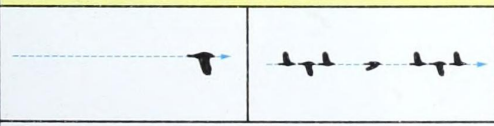


NORTHERN BOBWHITE ♂
Rufous overall; short crest lacks white tip; white or buff pattern on face.



GAMBEL'S QUAIL ♂
Short dark head plume that tilts forward; lacks scaly feathers • inhabits desert scrublands of the Southwest.

Flight Pattern

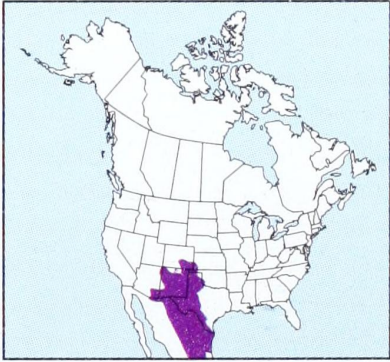


Takes off on rapidly beating wings, then alternates between series of rapid stiff wing beats and short glides.

Nest Identification

Shape  Location  

Lined with dry grasses and feathers • shelterd by shrub or grassy tussock • sometimes in open field • built by female • 9–16 dull white to cream-white eggs, some thickly speckled with small spots or dots of light brown, 1.3 inches long.



Plumage Sexes similar	Habitat    	Migration Nonmigratory	Weight 6.7 ounces
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DATE _____ TIME _____ LOCATION _____

Family ODONTOPHORIDAE	Species <i>Colinus virginianus</i>	Length 9–10 inches	Wingspan 14–16 inches
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NORTHERN BOBWHITE

This familiar eastern quail, named for the male’s loud call, inhabits farmlands, fields, lightly grazed pastures, and grasslands. The “Masked Bobwhite,” a southwestern race with a black face and cinnamon-rufous underparts, formerly of Mexico and southeast Arizona, has been reintroduced into Arizona grasslands.

• **SONG** Rising clear whistle, *bob-WHITE!* or *bob-bob-WHITE!*, given most often by males in spring and summer. Also whistles *hoy*.

• **BEHAVIOR** Solitary or in pairs in spring; family groups in summer; coveys of 8–15 in fall and winter. Roosts on ground in groups of up to 30, tails pushed together and heads facing out of a tight wagon wheel-shaped circle. Eats seeds, insects, worms, and spiders.

• **BREEDING** Monogamous; some evidence of polygamy.

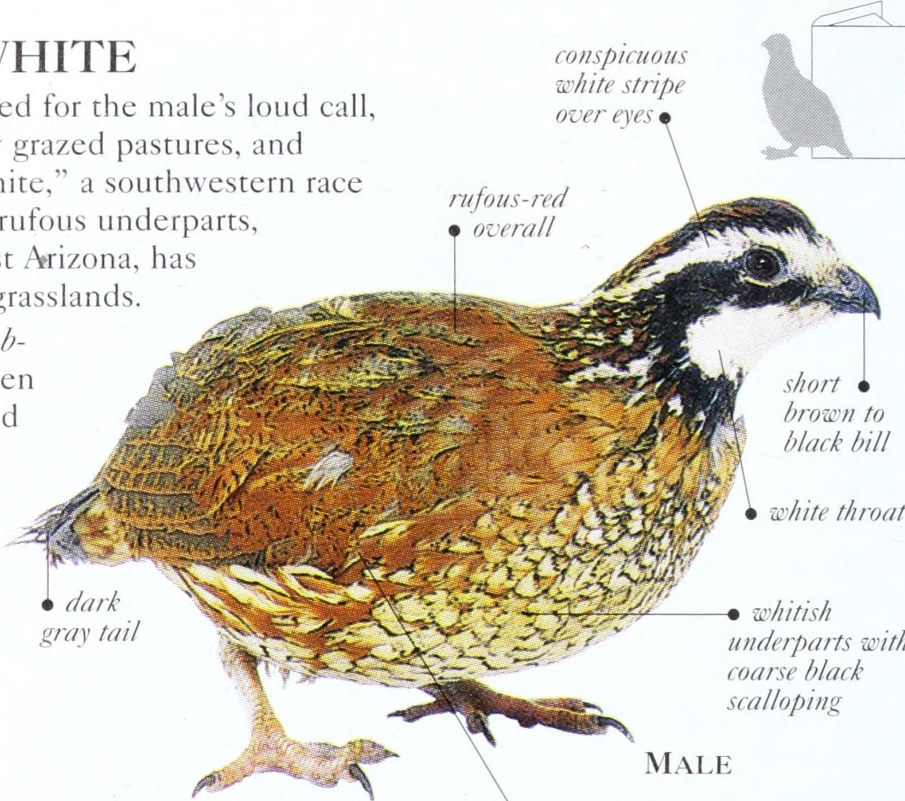
• **NESTING** Incubation 23–24 days by both sexes. Young leave nest soon after hatching; tended by both sexes. First flight at 12–14 days. 1 brood per year.

• **POPULATION** Uncommon to common in brushlands and open woodland. Introduced into northwestern US. Significantly declining over much of range.

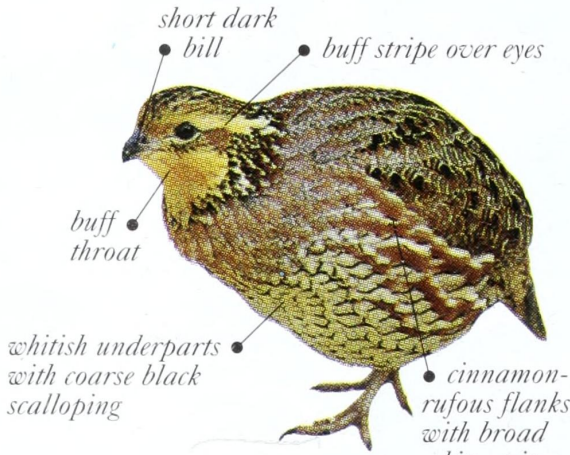
• **FEEDERS** Scattered grains on ground or man-made

permanent sources of water.

• **CONSERVATION** Hunted as a game bird; highly managed in some states. Decline may be due to habitat loss and changes in farming practices. Sensitive to cold winter weather; entire populations may be wiped out by hard freezes.



MALE



FEMALE

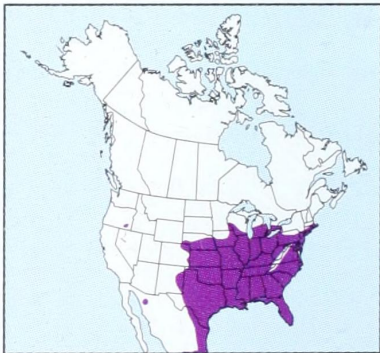
Similar Birds



SCALED QUAIL ♂
Pale gray-brown head; scaly body; prominent white tufted crest; prefers more arid habitat.



GAMBEL'S QUAIL ♂
Prominent crest plume; uniformly pale gray overall; sandy-buff underparts; rufous flanks with white streaks • inhabits desert scrublands of the Southwest.



Flight Pattern

Rises swiftly with whirring rapid wing beats then sails away, wings curved downward. Alternates series of stiff wing beats with short glides on drooping wing tips.

Nest Identification

Shape Location

Lined with grasses • leaves small openings in sides • on ground • built by both sexes • 14–16 white or cream-white eggs; subpyriform and sometimes quite pointed, 1.2 inches long.

Plumage Sexes differ	Habitat	Migration Nonmigratory	Weight 6.3 ounces
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DATE _____ TIME _____ LOCATION _____

Family RALLIDAE	Species <i>Coturnicops noveboracensis</i>	Length 6–7.25 inches	Wingspan 10–13 inches
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YELLOW RAIL

The sparrow-sized Yellow Rail is one of the least-known rails. It is so reluctant to fly that trained dogs can catch it. If flushed it flies weakly with its feet dangling, showing a white patch on the trailing edge of the inner wing before dropping back into cover. Its narrow body, strong toes, and flexible wings help it survive in dense marsh grasses. Adults have olive-gray legs, a buff chest, dark brown flanks with white bars, white-spotted wing coverts, and cinnamon undertail coverts. Juveniles are darker gray-black above with slight buffy striping; more white spotting on head, neck, breast, and sides; and more black barring on the flanks.

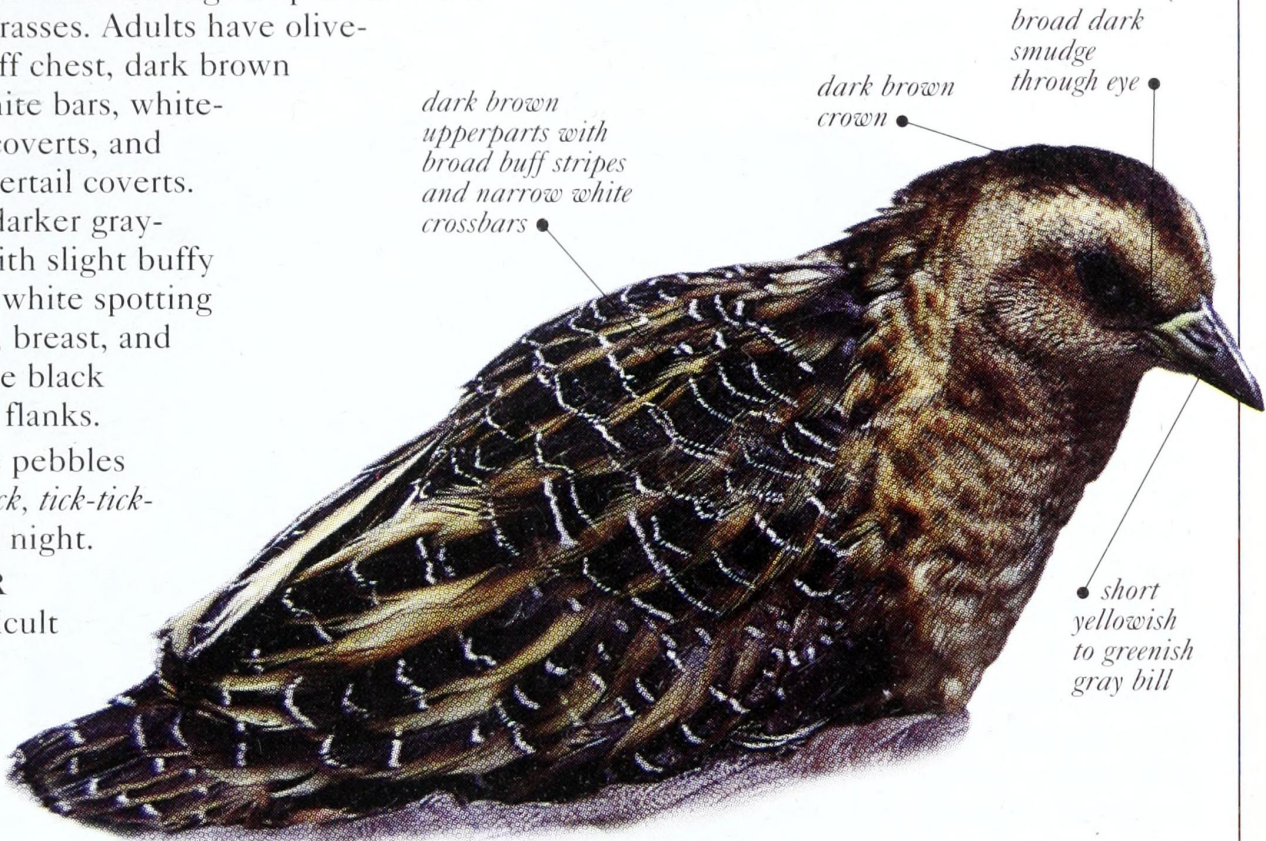
• **SONG** Like pebbles tapping, *tick-tick, tick-tick-tick*. Usually at night.

• **BEHAVIOR** Secretive; difficult to see in the open; sticks to thick grasses and marsh vegetation.

Prefers to walk or run if disturbed. Flutters in air when flushed, then quickly drops and runs on the ground to escape. Averse to flying yet able to migrate great distances. Eats insects, small snails, seeds, tender leaves of clover, and grasses.

• **BREEDING** Monogamous. Solitary nester.
• **NESTING** Incubation 16–18 days by female. Precocial young leave nest shortly after hatching. Probably tended by female. May be independent of parents at 35 days. 1 brood per year.

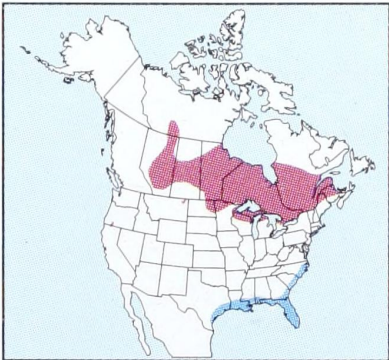
• **POPULATION** Uncommon to rare and poorly known. Declining due to loss of habitat.
• **CONSERVATION** Draining and development of wetlands negatively impacting populations. Considered a game bird in some states.



Similar Birds



SORA
Juveniles are twice as large; bright yellow bill; lack buff stripes on upperparts; lacks white wing patch in flight.



Flight Pattern

Flutters weakly on floppy wings for short low flights. Direct flight when traveling longer distances.

Nest Identification

Shape Location

Canopy of vegetation pulled to cover mat of fine dead grass • above damp soil on bare ground or flattened vegetation • a little above water of marsh or meadow and screened by small blades of grass • built by both sexes • 7–10 creamy buff eggs occasionally spotted with reddish brown and capped; ovate but often markedly elongated, 1.1 inches long.

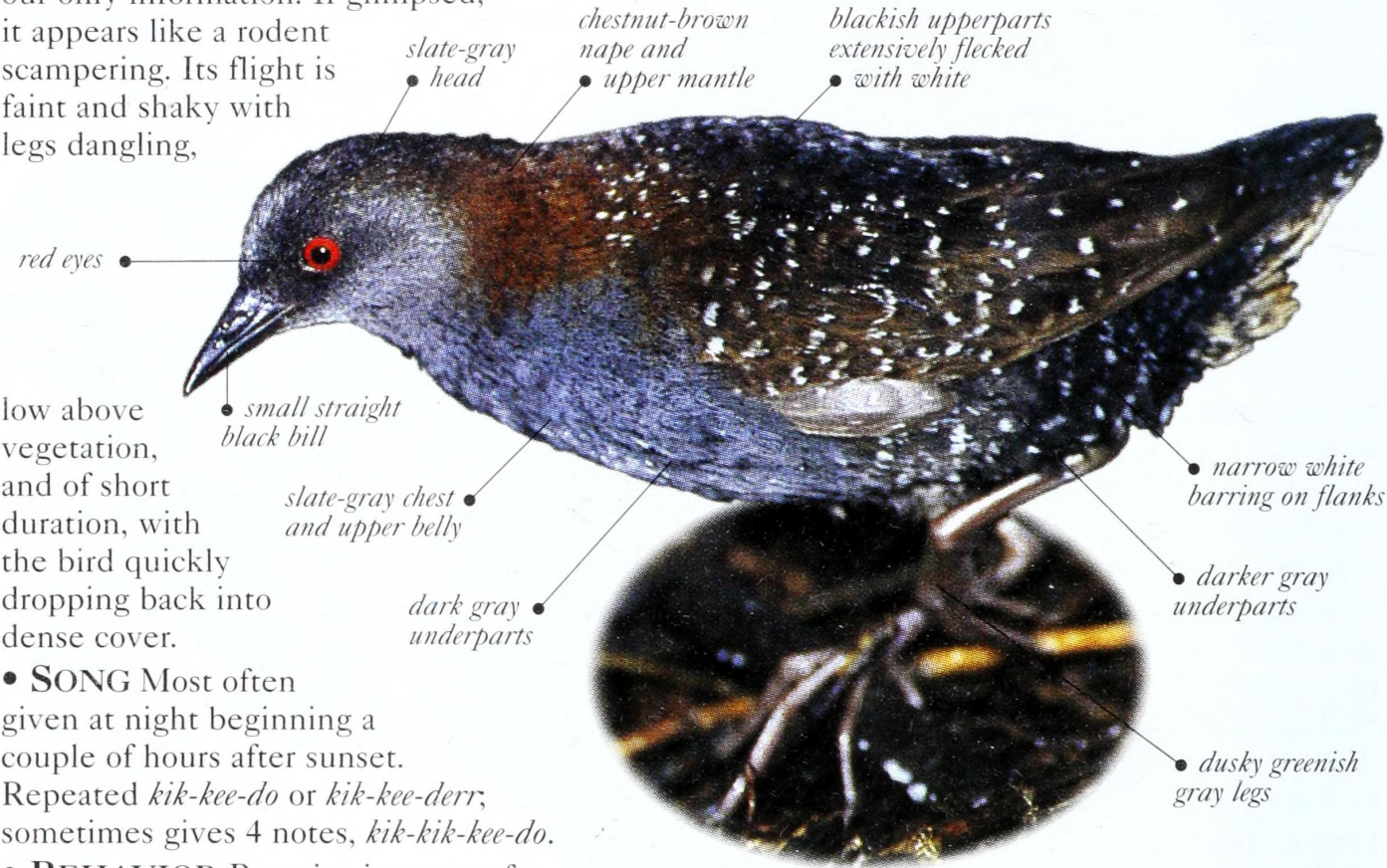
Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.8 ounces
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DATE _____ TIME _____ LOCATION _____

Family RALLIDAE	Species <i>Laterallus jamaicensis</i>	Length 6 inches	Wingspan 10.5–11.5 inches
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BLACK RAIL

The smallest and perhaps most secretive member of the rail family, this bird was first recorded on the island of Jamaica and is extremely difficult to find. Its range is not well known, and small populations and individual records scattered widely across the United States provide our only information. If glimpsed, it appears like a rodent scampering. Its flight is faint and shaky with legs dangling,



low above vegetation, and of short duration, with the bird quickly dropping back into dense cover.

- **SONG** Most often given at night beginning a couple of hours after sunset. Repeated *kik-kee-do* or *kik-kee-derr*; sometimes gives 4 notes, *kik-kik-kee-do*.
- **BEHAVIOR** Remains in cover of vegetation; rarely stays exposed for long. Rarely flies. Lives in freshwater marshes and wet meadows or in shallow margins of saltwater marshes above the beach line. Sometimes found in grain fields and dry hay fields. Eats seeds of aquatic plants, grasses and grains, insects, and isopods (small marine crustaceans).
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 16–20 days by both sexes. Young leave nest soon after hatching. Tended by both parents. Possibly 2 broods per year.
- **POPULATION** Generally uncommon to rare; although

Flight Pattern

Weak fluttering floppy flight with legs dangling.

Nest Identification

Shape Location

locally common in some places. Declining in most parts of North American range due to loss of habitat, especially coastal marshes. Population stable in protected habitat.

- **CONSERVATION** Wetland conservation important.

Similar Birds

YELLOW RAIL
Larger; buff; white wing patches visible in flight.



Woven coil of soft grass blades, sedge, or other vegetation • in grass 18–24 inches tall on edge of marsh • built by both sexes • 4–13 white, pinkish white, or creamy white eggs dotted with brown; short subelliptical or elliptical, 1 inch long.

Plumage Sexes similar	Habitat	Migration Most migrate	Weight 1.2 ounces
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DATE _____ TIME _____ LOCATION _____

Family RALLIDAE	Species <i>Crex crex</i>	Length 10.5 inches	Wingspan 17–18 inches
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CORN CRAKE

The *crek-crek* sound made by rubbing fingernails across the teeth of a comb often entices this timid bird to leave its hiding place. A native of Eurasia, rare vagrants have found their way to the farmlands of Canada and New England. Unlike most other rails, the Corn Crake does not live in marshes but rather in meadows and other grasslands. When flushed, the chestnut wings with darker flight feathers are distinctive. Juveniles are similar to adults but have lighter barring on sides, flanks, and on undertail coverts.

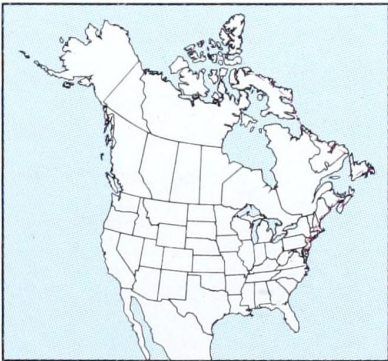
- **SONG** Abrasive, *crek-crek* or *crake-crake*, from which it gets its name, often heard at night. Also makes a soft mewling note.
- **BEHAVIOR** Solitary. More heard than seen. When frightened runs instead of flies. Eats earthworms, insects, snails, slugs, and sometimes seeds and grains.
- **BREEDING** Monogamous.
- **NESTING** Incubation 16–19 days by female. Precocial young leave nest on day of hatching. Usually tended by female, but sometimes by both sexes. Young independent and flying in 60 days. 1–2 broods per year.



Similar Birds



SORA
Juvenile is slightly smaller; rich chestnut-brown back lacks distinctive mottling; white undertail coverts lack barring; lacks chestnut wing patch.



Flight Pattern



Weak flight with legs dangling, dropping back into vegetation after short distance.

Nest Identification

Shape Location

- **POPULATION** Rare or accidental on northeast coast from Newfoundland south to Maryland. Formerly casual vagrant, but few records in recent years. Western European populations have declined.

Made of grass, twigs, and leaves • built by female • on ground sheltered by thick grasses • 8–12 ocherish or greenish eggs spotted with reddish brown and gray; ovate, 1.5 inches long.

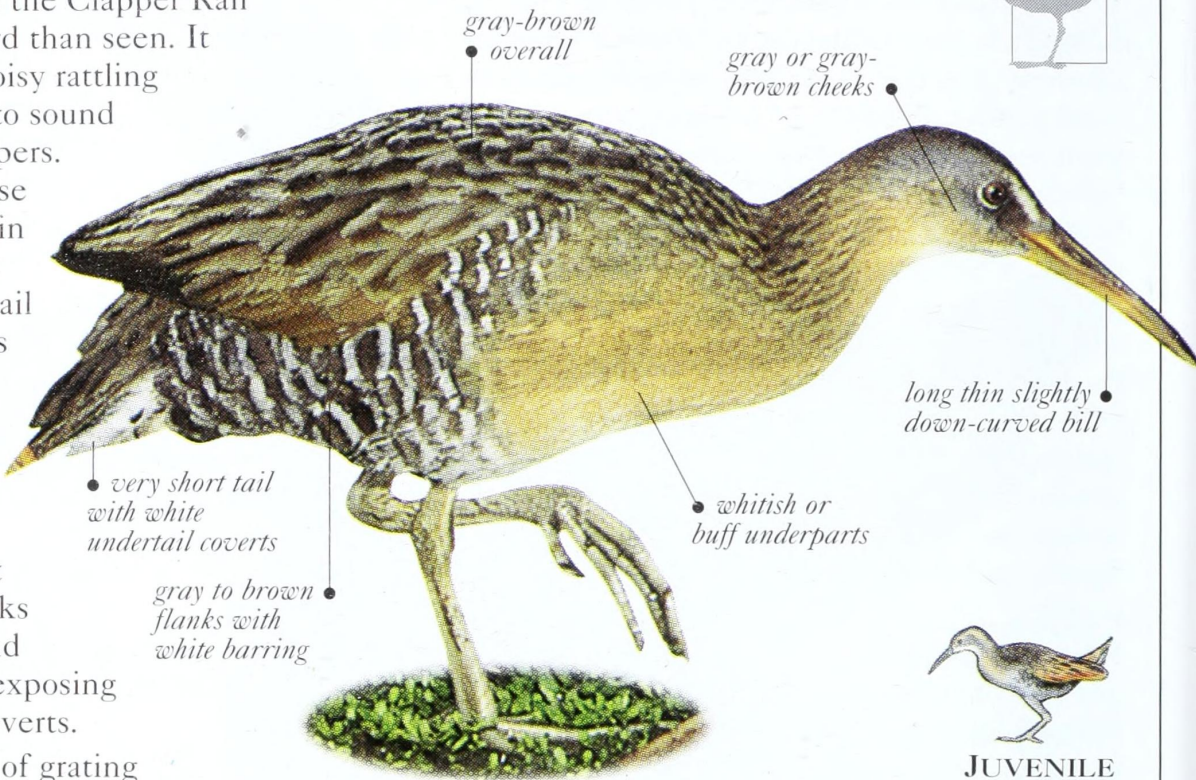
Plumage Sexes similar	Habitat	Migration Migratory	Weight 6.0 ounces
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DATE _____ TIME _____ LOCATION _____

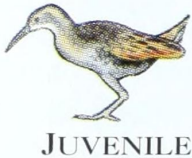
Family RALLIDAE	Species <i>Rallus longirostris</i>	Length 14–16 inches	Wingspan 19–21 inches
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CLAPPER RAIL

As with most rails the Clapper Rail is more often heard than seen. It is named for its noisy rattling call which is said to sound like old-time clappers. Abrupt noises cause these birds to cry in unison; noisiest at night. This large rail is locally known as “marsh hen” and often leaves the cover of the salt marshes it inhabits to work the muddy flats at low tide. As it walks it bobs its head and flips its short tail exposing white undertail coverts.



- **SONG** A series of grating *kek-kek-kek* notes, accelerating then dropping off. Given most often at dusk on moonlit nights or when suddenly disturbed by loud noise. One call stimulates another; the calls travel like a wave through the marsh.
- **BEHAVIOR** Feeds mostly in the open at low tide on mudflats. At other times forages concealed in salt marsh vegetation. Eats crabs and other crustaceans, worms, amphibians, reptiles, mollusks, small fish, and aquatic insects.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 20–23 days by both sexes. Precocial young abandon nest soon after hatching. Tended by both sexes. Independent after 35–42 days. First flight at 63–70 days. Possibly 2 broods per year.
- **POPULATION** Common in coastal salt marshes but declining on West Coast and in some places in the East. Casual on Atlantic Coast to the Maritimes.



JUVENILE

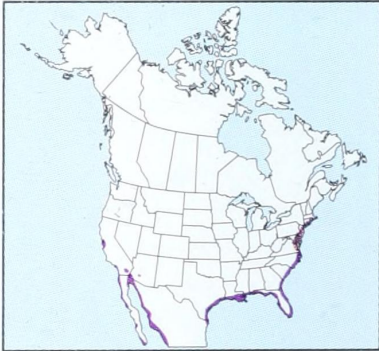
Similar Birds



KING RAIL
Favors freshwater marshes; bolder black-and-white bars on flanks; bright rufous-brown neck and chest; tawny-buff cheeks; buff-edged back feathers; brown wing coverts; voice differs.



VIRGINIA RAIL
One-third the size; darker overall; blue-gray auriculars; bright rufous upperwing coverts.



Flight Pattern



Low fluttering flight over short distances with legs dangling.

- **CONSERVATION** The inland freshwater race on the lower Colorado River is considered endangered. Also endangered on the West Coast due to habitat loss and perhaps introduced predators.

Nest Identification



Basket of aquatic vegetation and tide-deposited materials • elevated on firm bank or under small bush • built by both sexes, but male does more • 5–12 buff or olive-buff eggs marked with brown; subelliptical to long subelliptical to ovate, 1.7 inches long.

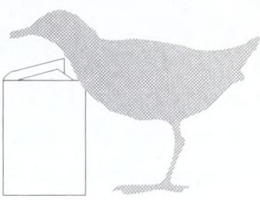
Plumage Sexes similar	Habitat	Migration Migratory	Weight 11.4 ounces
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DATE _____ TIME _____ LOCATION _____

Family RALLIDAE	Species <i>Rallus elegans</i>	Length 15–19 inches	Wingspan 21–25 inches
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KING RAIL

This large freshwater rail migrates through the Mississippi Valley and along the Atlantic Coast. Oddly, this bird's population seems tied to that of the muskrat, which creates open spaces in the marsh providing feeding and drinking areas for the rail. Widely



distributed in the East in summer, it is found in both freshwater and brackish marshes. Some consider it an inland freshwater race of the smaller Clapper Rail, but the King Rail is more rufous and has buff edging on the back feathers and brown to rufous wing coverts.

- **SONG** Series of less than 10 notes of *kek-kek-kek* or *jupe-jupe-jupe* deeper than those of Clapper Rail and not descending. Various other clucking and grunting notes.
- **BEHAVIOR** Sometimes feeds in open, mostly in shallow water or mudflats exposed at low tide. Variable diet of aquatic and semiaquatic foods includes plant parts, invertebrates, and vertebrates. Terrestrial, yet migrates long distances.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 21–24 days by both sexes. Young abandon nest soon after hatching; stay with parents about 63 days. Possibly 2 broods per year.
- **POPULATION** Fairly common to common in freshwater and brackish habitat near the Gulf Coast. Declined or disappeared in some areas due to loss of and/or contamination of habitat.



Similar Birds

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VIRGINIA RAIL
Much smaller; darker overall; blue-gray auriculars; bright rufous upperwing coverts.
- 

CLAPPER RAIL
Slightly smaller; duller coloring; less barring on flanks; variable plumage, but grayish edge on brown-centered back feathers and olive-brown wing coverts; frequents salt marshes.

Flight Pattern



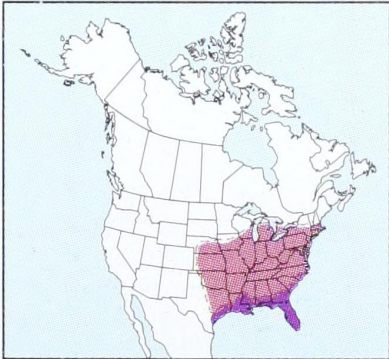
Slow floppy flight, often low above vegetation with feet dangling.

Nest Identification

Shape 

Location 

Dry aquatic vegetation • 6–8 inches above water amid aquatic vegetation • built by both sexes, but male does more • 6–15 buff eggs spotted with brown; ovate, 1.6 inches long.



Plumage Sexes similar	Habitat 	Migration Migratory	Weight 14.6 ounces
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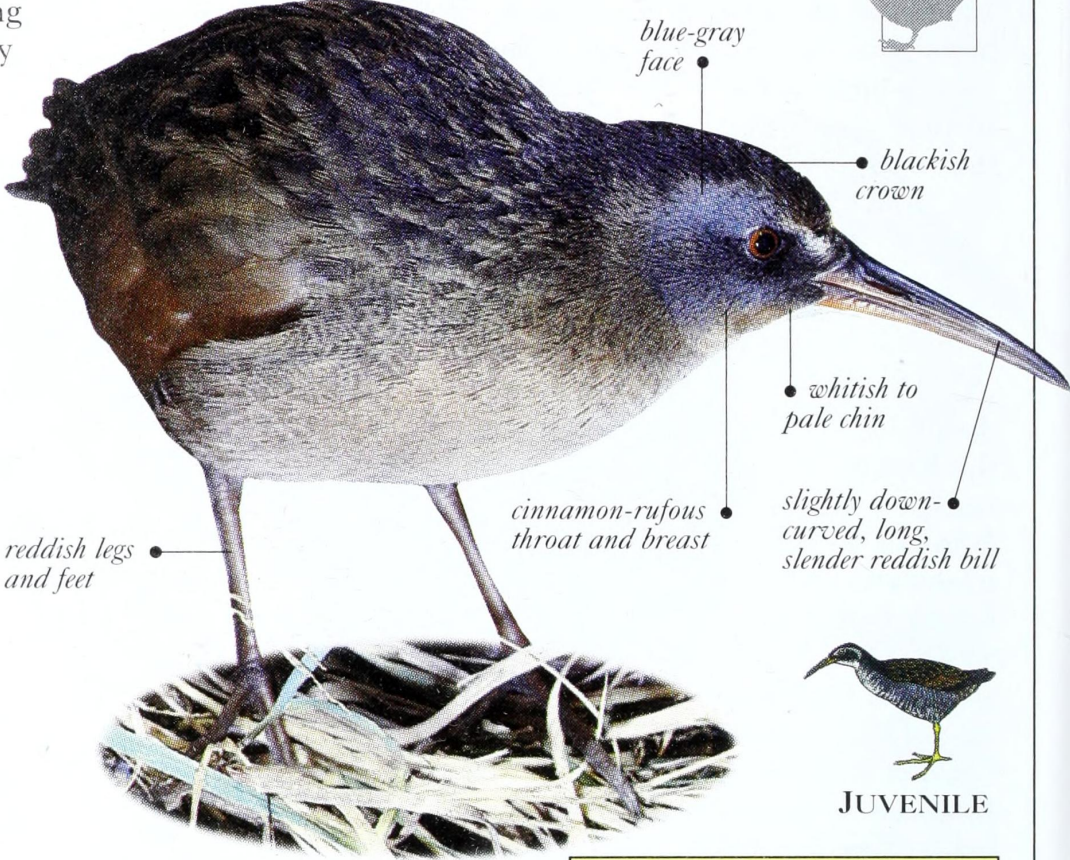
DATE _____ TIME _____ LOCATION _____

Family RALLIDAE	Species <i>Rallus limicola</i>	Length 9–10 inches	Wingspan 13–14.5 inches
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VIRGINIA RAIL

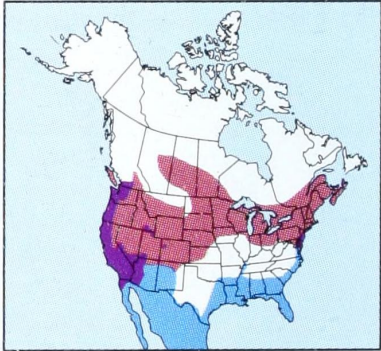
Like all rails, the Virginia Rail generally does not fly when it is being pursued but will run swiftly through the marsh grasses. Note its gray cheeks and the reddish bill and legs. Flanks, lower belly, and undertail coverts are barred with black and white. In flight the wings show chestnut in the leading edge. Although this bird prefers freshwater and brackish marshes, it often inhabits salt marshes in winter. Juveniles have dark blackish brown upperparts and black, gray, and white mottling and barring on underparts.

- **SONG** Resembles the clicking of keys on an old typewriter, *kid-ick, kid-ick, kid-ick* or *tic-tic-tic*. Also makes *kik, kik, kik, ki-queea* “kicker” call and descending series of piglike grunts and other odd calls.
- **BEHAVIOR** Somewhat secretive and terrestrial. Feeds primarily on insects but also takes aquatic animals, including worms, spiders, crustaceans, and small fish. Diet is varied, especially in winter, with duckweed and seeds of marsh grasses, rushes, and sedges.
- **BREEDING** Monogamous.
- **NESTING** Incubation 18–20 days by both sexes. Young leave nest soon after hatching. Tended by both parents. First flight at about 25 days. Possibly 2 broods per year.



Similar Birds

-  **KING RAIL**
About twice the size • olive-brown head; brown to gray cheeks; cinnamon-rufous underparts; black-and-white barring on flanks.
-  **CLAPPER RAIL**
Larger; grayish body; cinnamon to gray underparts; black-and-white barring on flanks; prefers salt marshes.



Flight Pattern



Weak brief fluttering flight with long legs dangling.

Nest Identification

Shape  Location 

- **POPULATION** Fairly common to uncommon. Declining but still widespread despite loss of wetland habitat.
- **CONSERVATION** Still hunted as a game bird in some states. Wetland protection and management is crucial.

Pile of matted reeds and layers of coarse aquatic vegetation and grass • in tussock or clumped vegetation • built by both sexes • 5–13 off-white or buff eggs spotted with brown and often wreathed; oval to short oval, 1.3 inches long.

Plumage Sexes similar	Habitat 	Migration Migratory	Weight 3.1 ounces
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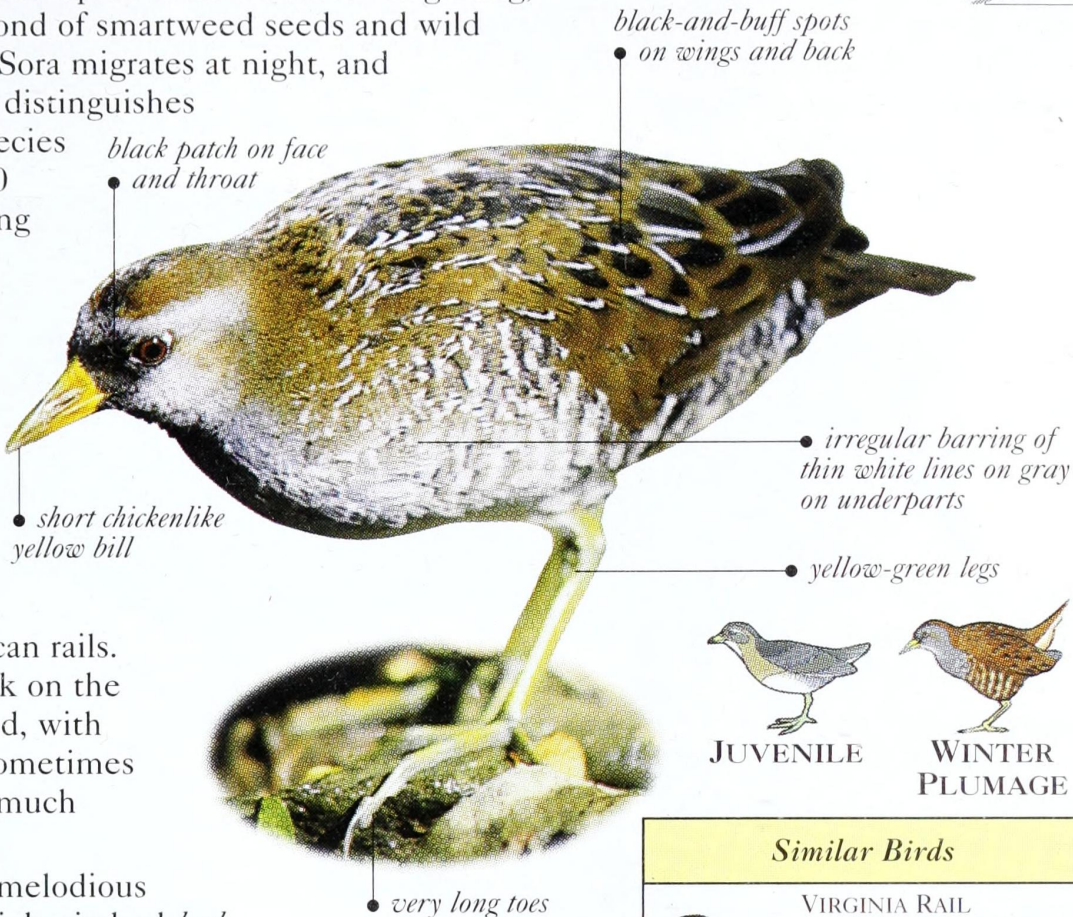
DATE _____ TIME _____ LOCATION _____

Family RALLIDAE	Species <i>Porzana carolina</i>	Length 8–10 inches	Wingspan 12–14.5 inches
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SORA

In late summer large numbers of these birds gather in marshes to feed and build up fat reserves before migrating; they seem especially fond of smartweed seeds and wild rice. Like all rails, the Sora migrates at night, and for a group that hardly distinguishes itself in the air, this species may cover almost 3,000 miles between wintering and breeding grounds. It is identifiable by its short yellow bill framed with black feathers around its base, black throat, and black center in the upper breast. Small and plump, it is one of the most common North American rails. Juveniles lack the black on the face and underparts and, with their buff coloration, sometimes are confused with the much smaller Yellow Rail.

- **SONG** Descending melodious whinny and abrasive high-pitched *keek*. Makes froglike whistle of *ker-wheel* on breeding ground.
- **BEHAVIOR** Small bill prevents it from probing into marsh mud for animals like the long-billed rails. Eats mainly plant life such as seeds, wild rice, and algae. Also feeds on insects, spiders, small crustaceans, and snails. Often found in the open where it walks slowly with head down and short tail cocked and flicked above white undertail coverts. Can show up in almost any moist habitat, especially in migration.
- **BREEDING** Monogamous.
- **NESTING** Incubation 19–20 days. Precocial young abandon nest soon after hatching. 2 broods per year.



Similar Birds



VIRGINIA RAIL
Long, slender, slightly down-curved reddish bill; gray face; rusty-red throat and breast.



YELLOW RAIL
Much smaller; checkered pattern of buff stripes and white bars on a blackish back on upperparts; lacks black on chin and throat; shows white wing patch in flight.

Flight Pattern

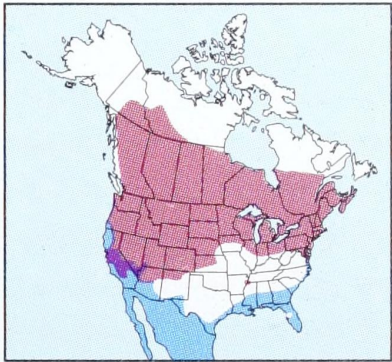


Weak labored floppy flight for short distances and low over vegetation with legs dangling.

Nest Identification

Shape  Location 

- **POPULATION** Common and widespread despite loss of wetland habitat.
- **CONSERVATION** Recent loss of habitat due to draining and development of marshes; also due to loss of wintering coastal habitat.



A bowl of cattails, dry leaves, grasses, and reeds • about 6 inches in diameter • connected to stems of marsh vegetation a few inches above water • in reeds, cattails, or grasses over deeper water • 10–12 rich buff eggs irregularly spotted with browns and grays; ovate, 1.2 inches long.

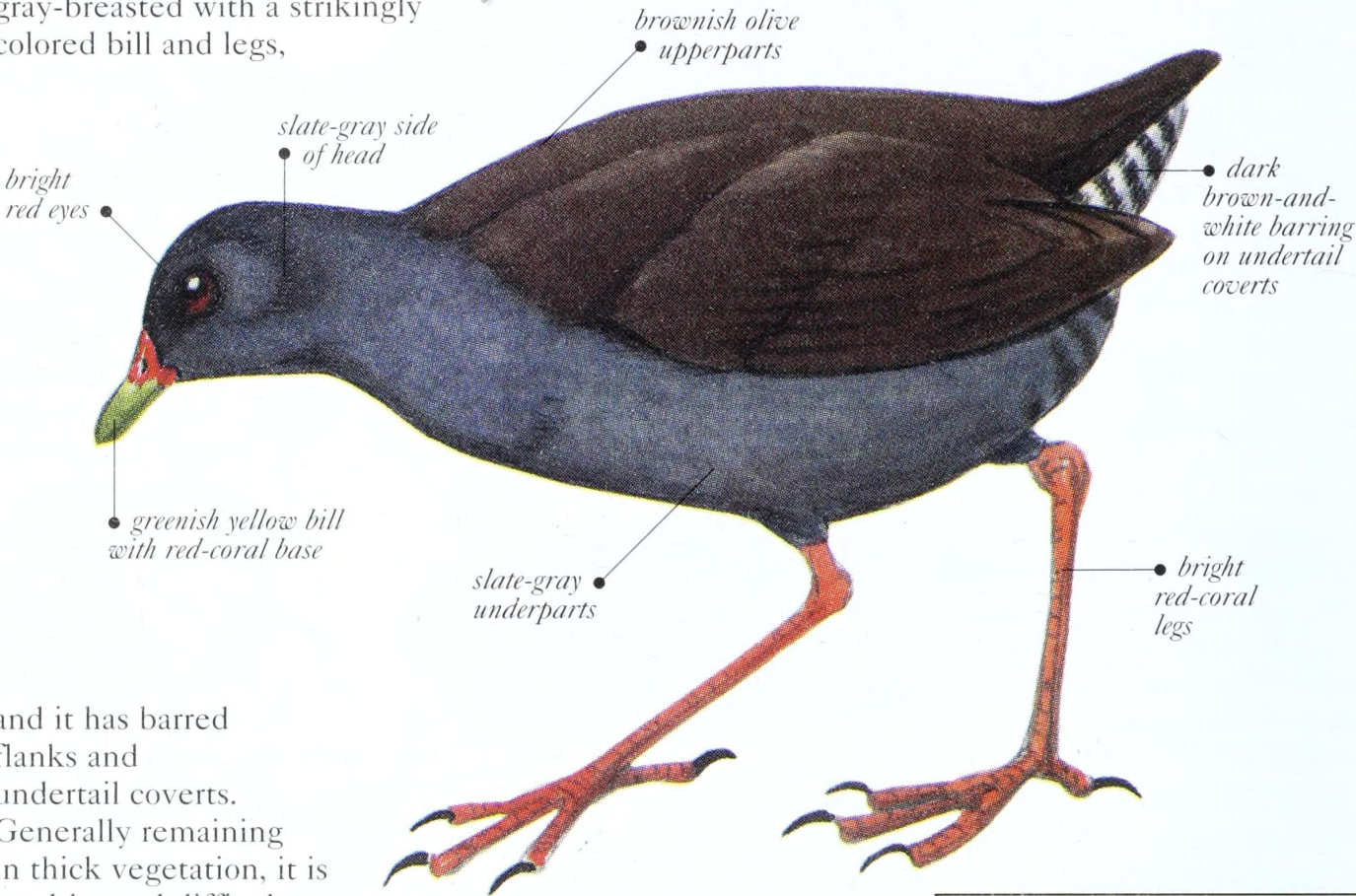
Plumage Sexes similar	Habitat 	Migration Migratory	Weight 2.6 ounces
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DATE _____ TIME _____ LOCATION _____

Family RALLIDAE	Species <i>Neocrex erythrops</i>	Length 7–8 inches	Wingspan 12–13 inches
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PAINT-BILLED CRAKE

Individuals of this widespread inhabitant of eastern and central South American marshlands have made their way to Texas and Virginia. This crake, which is a little smaller than a Sora, is gray-breasted with a strikingly colored bill and legs,



and it has barred flanks and undertail coverts. Generally remaining in thick vegetation, it is stealthy and difficult to observe and flush.

- **SONG** Utters loud, guttural, buzzing froglike croaking *qur'r'r'r'rk*, singly or in series.
- **BEHAVIOR** Secretive, generally staying within cover of vegetation in wetlands, but at sunrise and sunset may forage in more open areas near dense vegetation. Will fly if disturbed but lands in first available cover. Feeds on invertebrates, including insects, and seeds.
- **BREEDING** Monogamous. Solitary nester.

Flight Pattern

Weak labored flight low over vegetation with feet and legs dangling beneath body.

Nest Identification

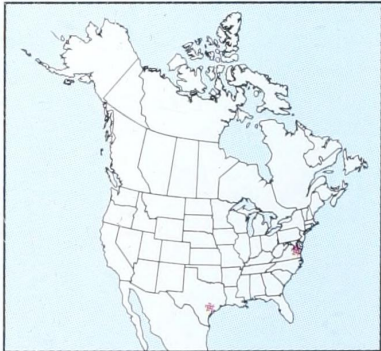
Shape	Location

- **NESTING** Incubation 19–20 days by both sexes. Precocial young leave nest soon after hatching; tended by both sexes. Possibly 2 broods per year.
- **POPULATION** Accidental in Texas and Virginia.

Grasses or reeds • about 6 inches in diameter • attached to stems of vegetation near or over water • 5–7 cream eggs heavily blotched with red-brown, ovate, 1.1 inches long.

Similar Birds

SORA
Larger in size; black face, chin, and throat; yellow bill; brown crown; white barring on flanks and belly; white undertail coverts; greenish yellow legs.



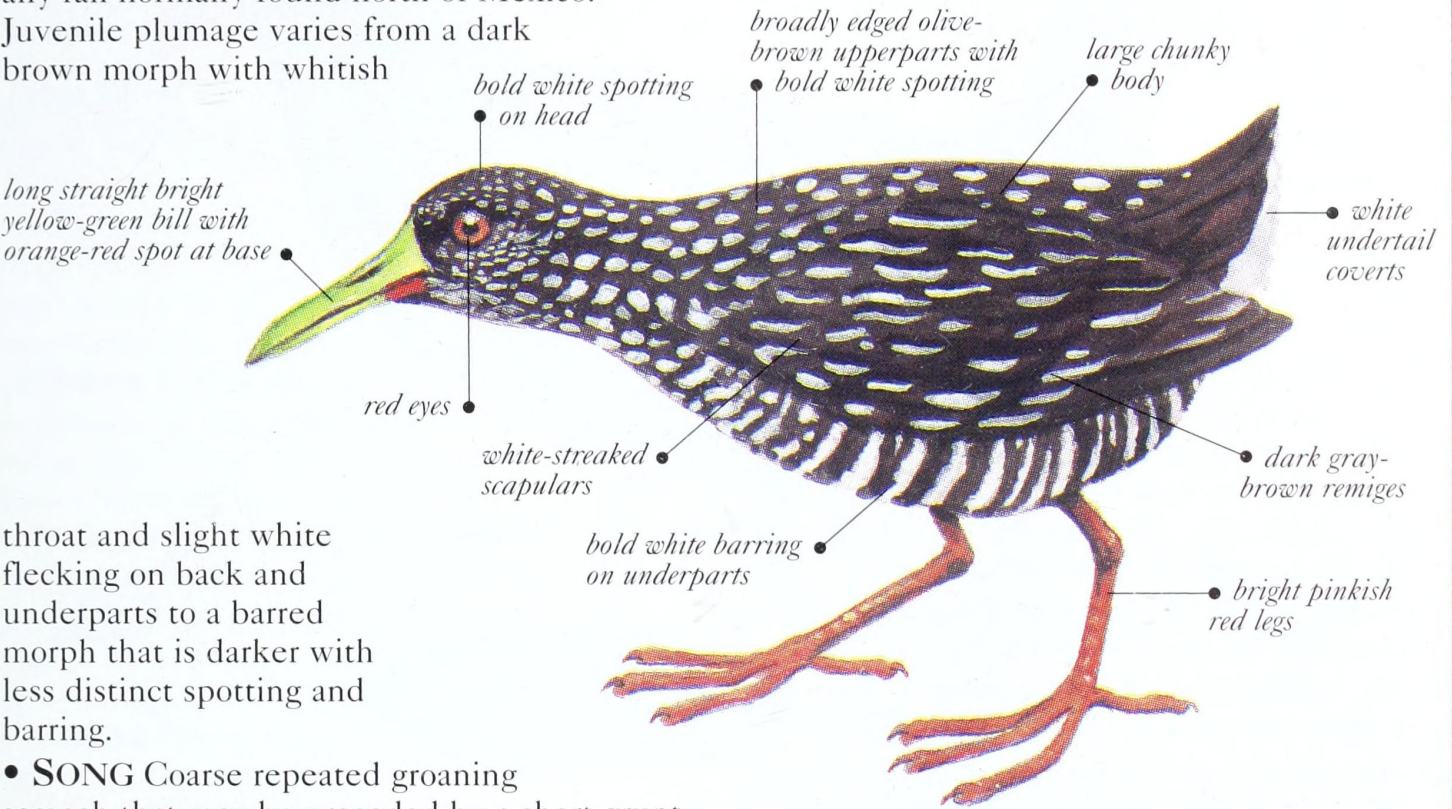
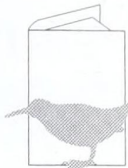
Plumage Sexes similar	Habitat	Migration Migratory	Weight 2.2 ounces
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DATE _____ TIME _____ LOCATION _____

Family RALLIDAE	Species <i>Pardirallus maculatus</i>	Length 10–11 inches	Wingspan 13–15 inches
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SPOTTED RAIL

The Spotted Rail is widespread in Central America, the Greater Antilles and South America, but has only been found twice in North America. It has a dark body with heavy white spotting and streaking on the upperparts and underparts; it should not be confused with any rail normally found north of Mexico. Juvenile plumage varies from a dark brown morph with whitish



throat and slight white flecking on back and underparts to a barred morph that is darker with less distinct spotting and barring.

- **SONG** Coarse repeated groaning screech that may be preceded by a short grunt, *kr'krreih kr'krreih*. Repeated *grrr* or *kehrr* with deep gruff pumping accelerating effect toward the end, *pum-KREEP, pum-KREEP*. Vocal at dawn, dusk, and night.
- **BEHAVIOR** Not shy but rarely ventures into open, staying in dense vegetation. Skulks in cattails, reeds, rushes, or tall grasses in freshwater marshes. Often nocturnal. Feeds on vegetable matter, aquatic insects, and other invertebrates. Makes short flights then drops back into marsh.
- **BREEDING** Monogamous. Territorial in breeding season.
- **NESTING** Sequence of nesting activity unknown but mainly in wet season. Young precocial.

Similar Birds



VIRGINIA RAIL
Juvenile has gray-brown eyes; duller yellow-brown bill lacks red basal spot; blacker head and upperparts; whitish underparts with black barring on neck and breast; broad black bars on belly, sides, flanks, and undertail coverts.

Flight Pattern

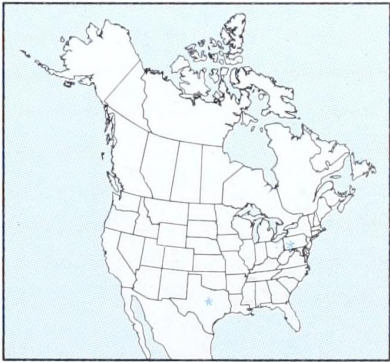


Weak flight low over vegetation with feet dangling.

Nest Identification

Shape  Location 

Cupped platform of grasses • low in marshy vegetation • often over water
• 3–7 brownish buff eggs with brown spots; oval or short oval, 1.3 inches long.



Plumage Sexes similar	Habitat 	Migration Migratory	Weight 6.0 ounces
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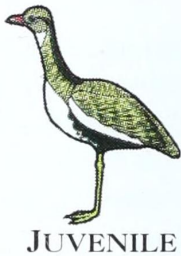
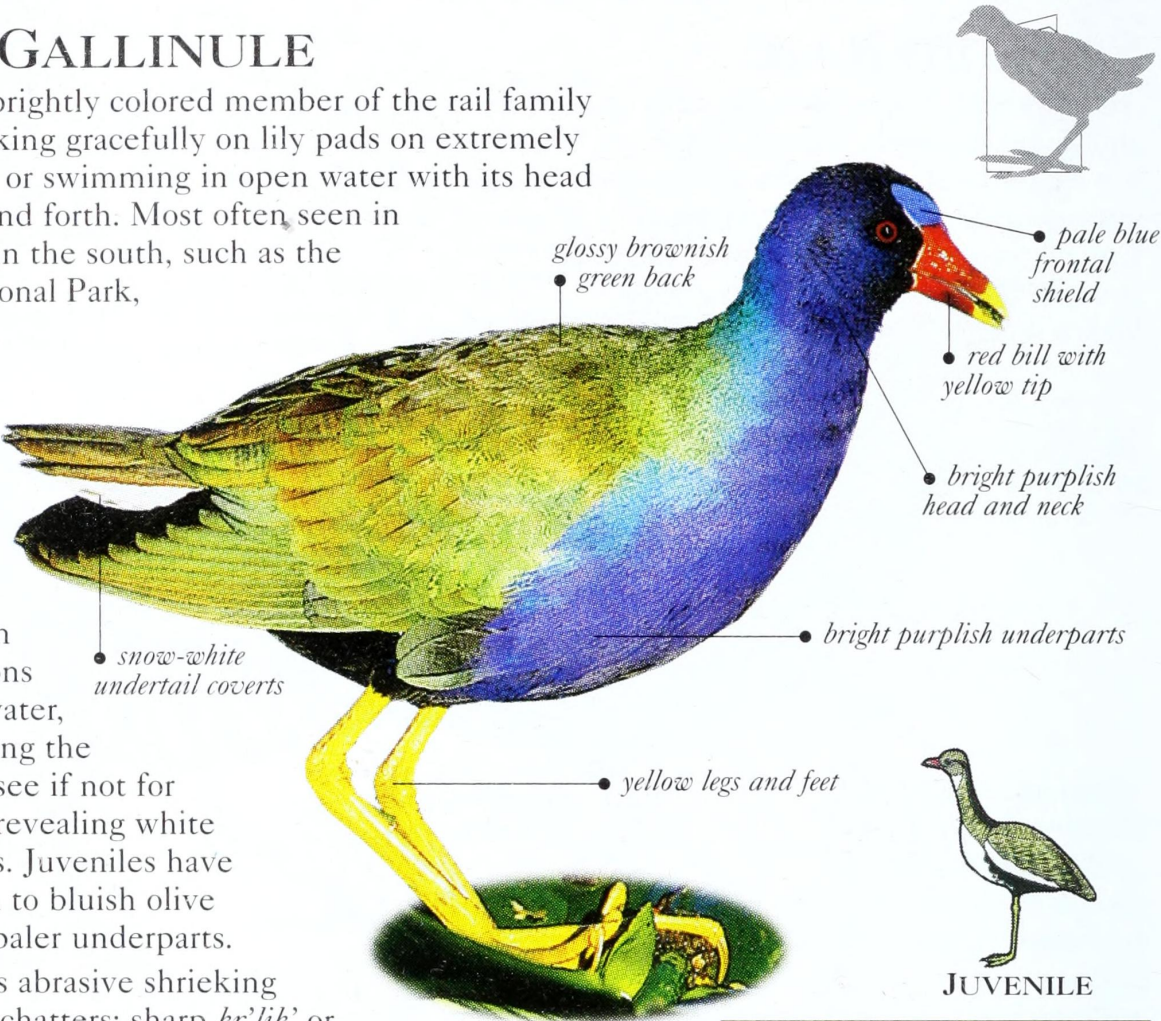
DATE _____ TIME _____ LOCATION _____

Family RALLIDAE	Species <i>Porphyryla martinica</i>	Length 13–14 inches	Wingspan 22 inches
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PURPLE GALLINULE

This beautiful brightly colored member of the rail family can be seen walking gracefully on lily pads on extremely long yellow feet or swimming in open water with its head pumping back and forth. Most often seen in protected areas in the south, such as the Everglades National Park, individuals have wandered as far north as New England. Gaudy in color, the hues blend with the greens of marsh vegetation and the reflections of blue sky on water, sometimes making the bird difficult to see if not for the flicking tail revealing white undertail coverts. Juveniles have chocolate-brown to bluish olive upperparts and paler underparts.

- **SONG** Various abrasive shrieking calls and hoarse chatters: sharp *kr'lik'* or *kee-k'*, gruff *kruk kruk-kruk-kruk*, screaming *whiehrrr* or *w'hehrr*, series of rapid clucking *kahw cohw-cohw-cohw* or *keh-keh-keh*.
- **BEHAVIOR** Feeds on seeds, fruits, and other parts of wild rice; grasses; fruit of water lily; grains; insects; crustaceans; snails; eggs and sometimes nestlings of marsh birds; amphibians; and small fish. Pumps and bobs head. Flicks short cocked tail when walking. Climbs well in vegetation.
- **BREEDING** Cooperative.
- **NESTING** Incubation 22–25 days by both sexes. Precocial young abandon nest soon after hatching and drying off. Tended and fed by both sexes, often with help from other birds. First flight at about 63 days. Possibly 2 broods per year.



JUVENILE

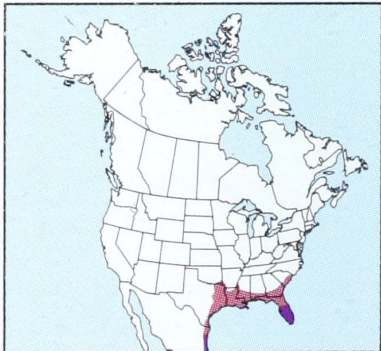
Similar Birds



COMMON MOORHEN
White line separates flanks from upperparts in juveniles and adults
• adults have red frontal shield; gray underparts; brownish upperparts.



AMERICAN COOT
Gray body; blackish head and neck; white bill and reddish brown frontal shield.



Flight Pattern



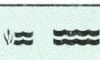
Labored slow flight with legs dangling just above water.

- **POPULATION** Fairly common in southern and coastal freshwater marshes, vegetated lakes, overgrown swamps, and lagoons. Decline due to loss of wetlands habitat.
- **CONSERVATION** Wetland conservation critical.

Nest Identification

Shape  Location 

Green and dry stems with leaves • floating island of vegetation • built by both sexes • 5–10 cinnamon-pink or buff eggs marked with brown, 1.5 inches long.

Plumage Sexes similar	Habitat 	Migration Migratory	Weight 9.1 ounces
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DATE _____ TIME _____ LOCATION _____

Family RALLIDAE

Species *Gallinula chloropus*

Length 14 inches

Wingspan 20–23 inches

COMMON MOORHEN

This is a fairly tame chickenlike bird of freshwater marshes, ponds, and lakes with heavy stands of cattails, rushes, sedges, and other aquatic vegetation.

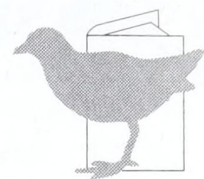
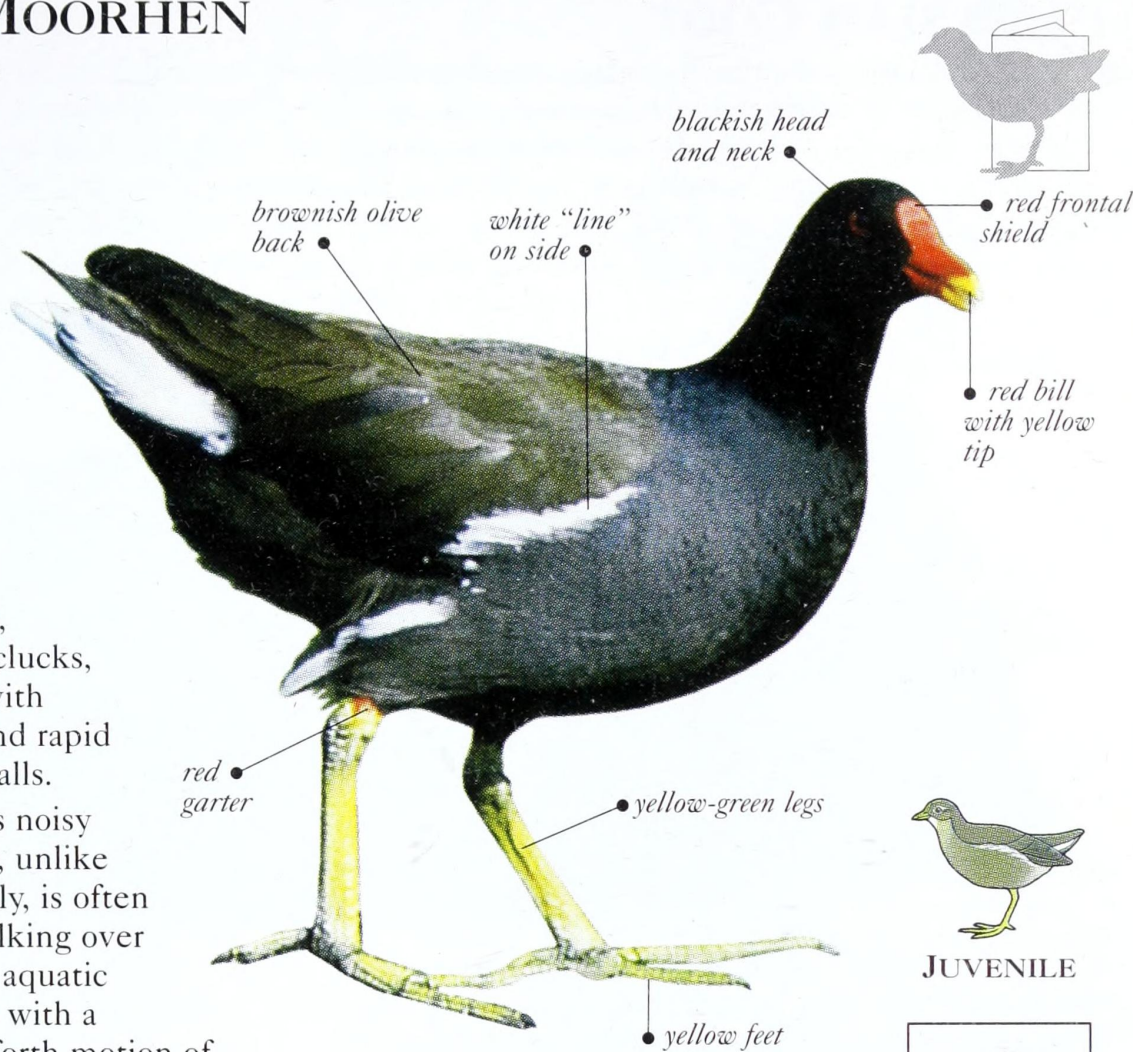
• **SONG** No musical sounds are produced. Vocalizations range from explosive, froglike *hups* to loud, chickenlike grunts, clucks, and squeaks along with drawn-out whines and rapid *thicket-thicket-thicket* calls.

• **BEHAVIOR** This noisy bird of the wetlands, unlike most of the rail family, is often seen in the open walking over or climbing through aquatic vegetation. It swims with a pumping back-and-forth motion of its head and neck. When walking it often flicks its tail up and down, flashing the white undertail coverts with their dark center. Usually found in medium to large groups in which individuals can be aggressive toward other members in disputes over food, mates, or nesting areas. Feeds on aquatic vegetation, snails, grasshoppers, and other invertebrates.

• **BREEDING** Monogamous. Solitary to semicolonial, some cooperative breeding.

• **NESTING** Incubation 18–22 days by both sexes. Precocial young stay in nest 40–50 days, fed by both parents and extra birds. 1–3 broods per year.

• **POPULATION** Common, but loss of wetlands has resulted in decline, especially in northern range. Still widespread; may be common in good marsh habitat.



JUVENILE

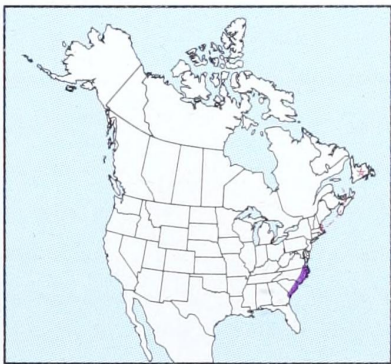


WINTER PLUMAGE

Similar Birds



AMERICAN COOT
White bill; slate-gray back; no white band on flanks.



Flight Pattern



Swift and strong direct flight when moving long distance. Weak and fluttering flight when moving very short distance.

Nest Identification

Shape



Location



Often with ramp of vegetation • made of bleached aquatic vegetation lined with grass • on ground near water or low shrub over water • built by both sexes • 2–13 cinnamon or buff eggs spotted with reddish brown or olive and overlaid with scattered fine dots, 1.7 inches long.

Plumage Sexes similar

Habitat

Migration Some migrate

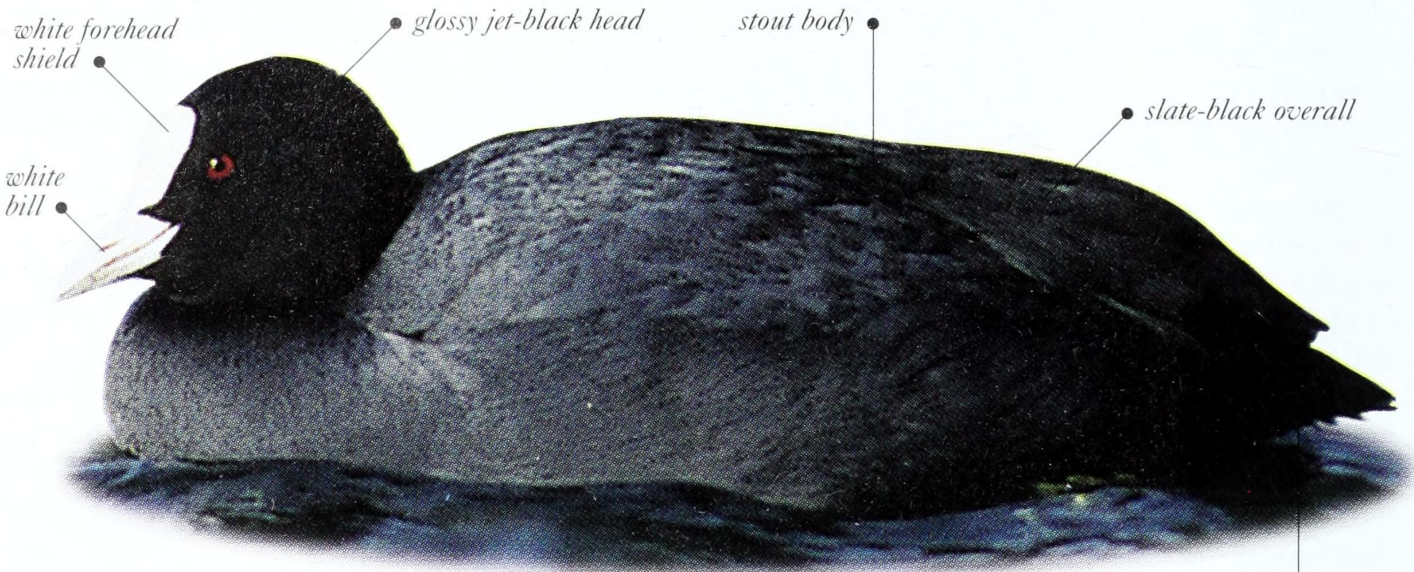
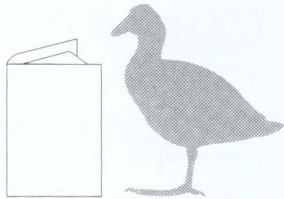
Weight 12.0 ounces

DATE _____ TIME _____ LOCATION _____

Family RALLIDAE	Species <i>Fulica atra</i>	Length 15.5 inches	Wingspan 23–28 inches
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EURASIAN COOT

On very rare occasions this European and Asiatic bird has wandered off course and been recorded as an accidental straggler to Labrador and Newfoundland in eastern North America, as well as to the Pribilof Islands in Alaskan waters. Dumpy and round, the Eurasian Coot is the only entirely grayish black waterbird with a white



forehead and bill. Unlike the American Coot, this species has entirely black undertail coverts; its white frontal shield is broad, rounded, and covers the front of the head; and a narrow white border shows on the trailing edge of the inner wings in flight.

- **SONG** Loud high-pitched *ko-wk*, *ke-wk*, and *cut* or sharp *peu*!
- **BEHAVIOR** More than 75 percent of diet made up of leaves, fronds, seeds, and roots of aquatic plants; remainder made up of insects, small fish, mollusks, crustaceans, and amphibians. Dives for food, picks it from surface of water, or grazes on land. Runs across water flapping wings to gain flight. Quarrelsome; often drives and chases other birds.
- **BREEDING** Monogamous. Gregarious.
- **NESTING** Incubation 21–25 days by both sexes. Young swim soon after hatching and follow parents for feeding. First flight at about 55–60 days. 1–2 broods per year.

Similar Birds



AMERICAN COOT
Lighter slate-gray; white sides on undertail coverts; reddish black band on bill; small red patch on forehead.



Flight Pattern

Rapid direct flight with somewhat stiff wing beats; feet protrude beyond tail.

Nest Identification

Shape	Location
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Dead cattails and bulrushes • lined with finer materials • anchored to standing plants among tall marsh vegetation in shallow waters • built by both sexes • 2–12 buff to grayish eggs with white spots.

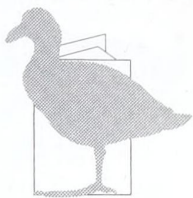
Plumage Sexes similar	Habitat	Migration Migratory	Weight Undetermined
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DATE _____ TIME _____ LOCATION _____

Family RALLIDAE	Species <i>Fulica americana</i>	Length 15 inches	Wingspan 23–28 inches
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AMERICAN COOT

This close relative of the gallinules and moorhens lives on open water and is often mistaken for a duck. It pumps its small head back and forth like a chicken when walking or swimming and usually travels and feeds in flocks. A common and widely distributed species over much of North America, the American Coot is easily distinguished by its overall slate-gray plumage, which is



gray-black head and neck • reddish brown frontal shield • short white bill

slate-gray body



JUVENILE

black on the head and neck, its white bill, and small reddish brown frontal shield. Juveniles are similar to adults but paler, particularly on the underparts, with a darker bill.

- **SONG** Grunts, grating quacks, and hoarse chatters of *ke-yik* and *k-rrk!* or *krek!* Drawling *k-yew-r* and laughing *wah wahk* or *kuk-kuk-kuk-kuk-kuk*.
- **BEHAVIOR** Feeds by immersing head and neck in shallows with body and tail tipped up. May also pick food off surface. Dives 10–25 feet deep for fronds, leaves, seeds, and roots of aquatic plants, which make up most of diet. Also eats insects, amphibians, mollusks, and small fish. Runs with wings flapping rapidly to gain flight from water. Often aggressive toward other waterbirds, chasing them nosily from its vicinity.
- **BREEDING** Monogamous. Pairs display in front of each other on water in courtship. Male also chases female across surface of water.
- **NESTING** Incubation 21–25 days by both sexes. Precocial

young abandon nest shortly after hatching and drying off. Tended by both sexes. First flight at 49–56 days. 1–2 broods per year.

- **POPULATION** Common to abundant. Has decreased in the East in recent years.

Flight Pattern

Fairly swift direct flight with rapid wing beats and feet protruding beyond tail.

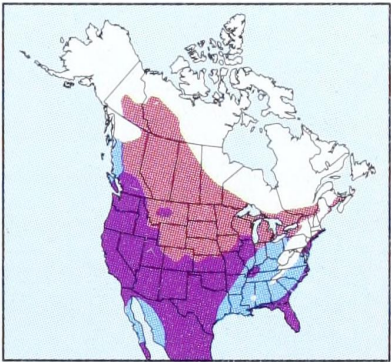
Nest Identification

Shape Location

Similar Birds

COMMON MOORHEN
Red shield; yellow-tipped red bill; brown back; white-tipped flank feathers form line between flank and back • juvenile paler with white flank stripe.

PURPLE GALLINULE
Dark bluish purple head, neck, and underparts; greenish brown back; yellow-tipped red bill; pale blue shield • juvenile has olive-brown upperparts; pale brown underparts; dull yellowish bill.



Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.6 pounds
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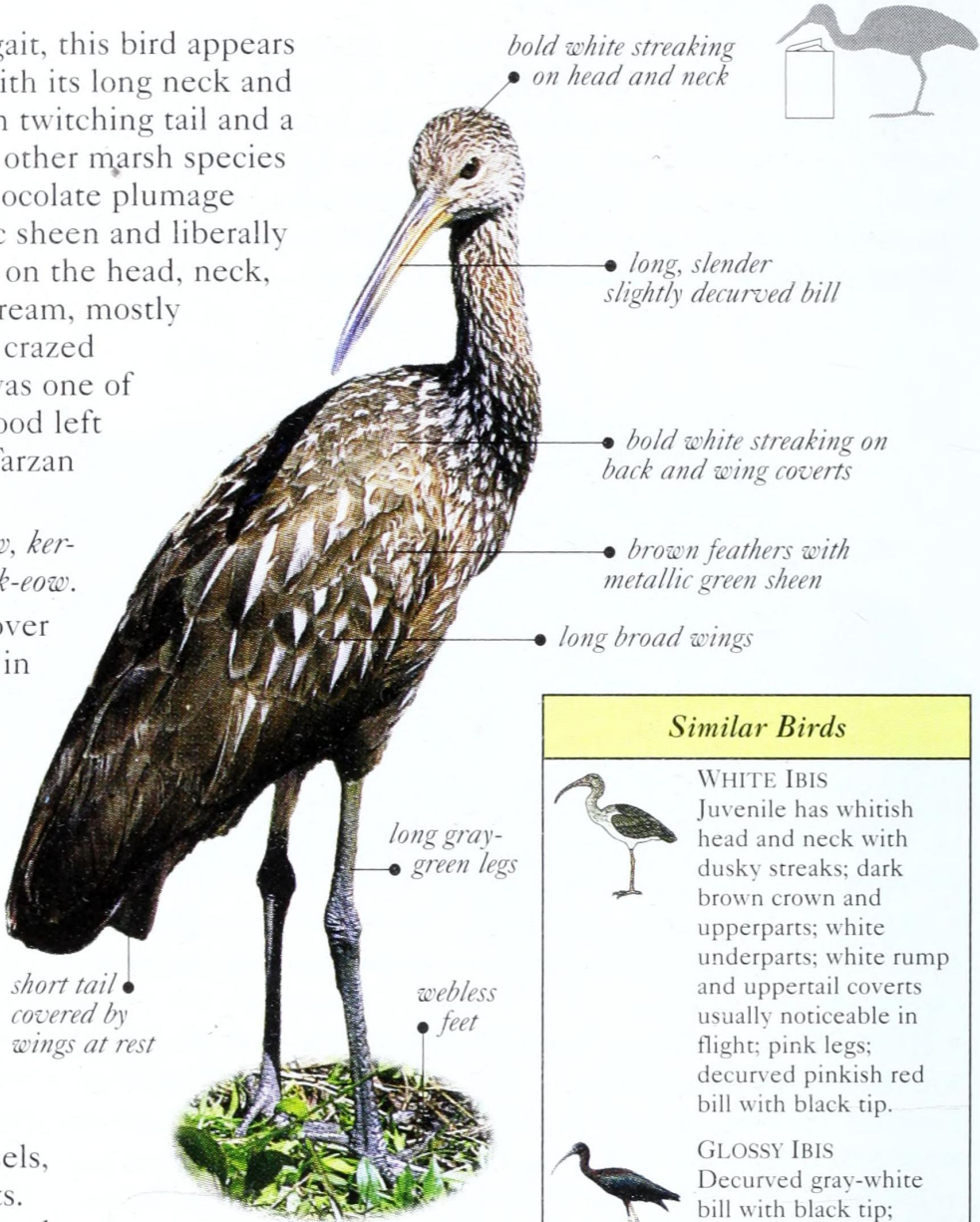
DATE _____ TIME _____ LOCATION _____

Family ARAMIDAE	Species <i>Aramus guarauna</i>	Length 26–28 inches	Wingspan 42 inches
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LIMPKIN

Named for its odd limping gait, this bird appears similar to the smaller ibis. With its long neck and legs, the Limpkin walks with twitching tail and a bit of a hunch like a rail. No other marsh species looks quite like it with its chocolate plumage washed with a green metallic sheen and liberally sprinkled with white streaks on the head, neck, and back. Its loud wailing scream, mostly heard at night, sounds like a crazed banshee in the swamp and was one of the “jungle sounds” Hollywood left in the soundtracks of early Tarzan movies shot in Florida.

- **SONG** Wailing *ker-r-ee-oww*, *ker-r-ee-oww*, *ker-r-ee-oww*, *k-eow*, *k-eow*.
- **BEHAVIOR** Stays near cover but sometimes perches high in open; heard more than seen. Skulks along edges of marshes and swamps, jerking head to look around; lifts feet high when walking. Probes long bill into mud or water to catch food by sight or touch with sensitive bill. Favorite food is the large apple snail, *Pomacea*, but also eats other freshwater snails, mussels, frogs, crustaceans, and insects. Very tame. In flight legs protrude beyond short tail; neck extends cranelike.
- **BREEDING** Monogamous.
- **NESTING** Incubation by both sexes. Precocial young tended and fed by 1 or both sexes. 2–3 broods per year.
- **POPULATION** Locally common in swamps and wetlands; rare to fairly common in Florida; casual in southern Georgia; accidental north to Maryland.



Similar Birds



WHITE IBIS
Juvenile has whitish head and neck with dusky streaks; dark brown crown and upperparts; white underparts; white rump and uppertail coverts usually noticeable in flight; pink legs; decurved pinkish red bill with black tip.



GLOSSY IBIS
Decurved gray-white bill with black tip; grayish legs; gray-brown head and neck with white streaks; gray-brown underparts; dull metallic olive-green upperparts.

Flight Pattern



Distinctive direct flight like hurried crane is heavy with quick upstrokes and slow downstrokes.

Nest Identification

Shape  Location 

• **CONSERVATION** Nearly hunted to extinction in early 1900s until federal laws and sanctuaries protected them, and their numbers slowly increased.



Reeds and grass • lined with fine materials • built by both sexes • 3–8 olive or buff eggs marked with brown; oval or short oval, 2.3 inches long.

Plumage Sexes similar	Habitat 	Migration Nonmigratory	Weight 2.4 pounds
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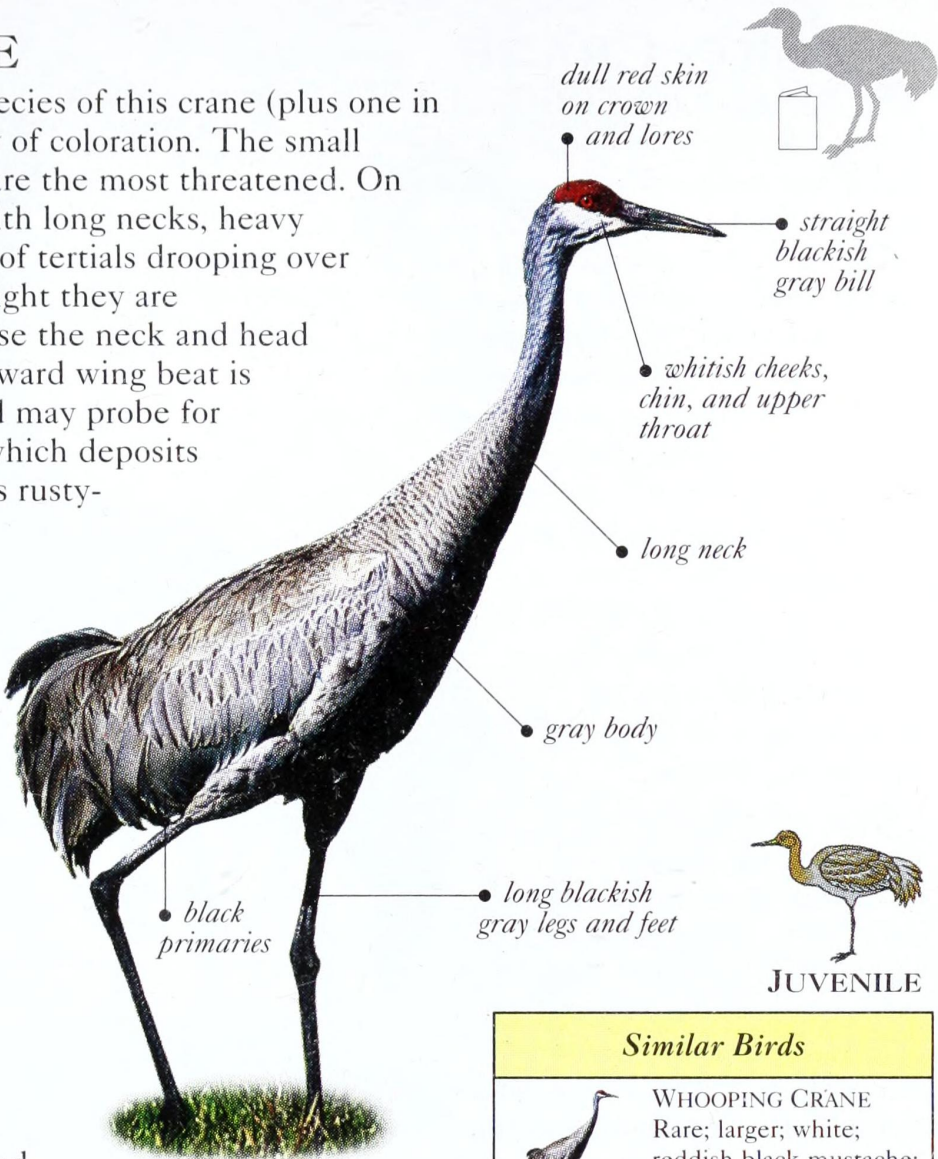
DATE _____ TIME _____ LOCATION _____

Family GRUIDAE	Species <i>Grus canadensis</i>	Length 34–48 inches	Wingspan 73–90 inches
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SANDHILL CRANE

The five North American subspecies of this crane (plus one in Cuba) differ in size and intensity of coloration. The small southern sedentary populations are the most threatened. On the ground cranes look stately with long necks, heavy straight bills, long legs, “bustle” of tertials drooping over the tail, and upright stance. In flight they are distinguished from herons because the neck and head are extended and the slow downward wing beat is jerked quickly upward. This bird may probe for food in mud that contains iron, which deposits on the bill and stains the feathers rusty-brown when the bird preens.

- **SONG** Noisy trumpetlike *garoo-oo-a-a-a-a*; can carry more than a mile.
- **BEHAVIOR** Roosts communally at night in winter, standing on damp low land or in shallow water. Courtship dances in late winter and spring involve bounding 6–8 feet into air with wings half spread and calling loudly. Eats variety of plants and animals. In summer feeds in breeding marshes or nearby meadows. Walks great distances for food. May soar on thermals and migrate so high it is invisible from the ground.
- **BREEDING** Monogamous. Thought to mate for life.
- **NESTING** Incubation 28–32 days by both sexes. Precocial young leave nest soon after hatching. First flight at 65 days. 1 brood per year.
- **POPULATION** Common to fairly common and local. Stable or increasing, though vulnerable to habitat loss.
- **CONSERVATION** Killing and habitat loss to agriculture depleted southern numbers in the last two centuries. Degradation of

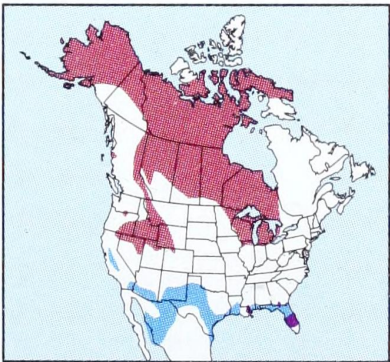


Similar Birds	
	WHOOPING CRANE Rare; larger; white; reddish black mustache; black primaries visible in flight.
	GREAT BLUE HERON Lacks “bustle”; gray upperparts; yellow bill; dull yellow-brown legs; white head; elongated black supercilium; flies with neck pulled back in S-curve on body.

Flight Pattern		
Heavy, labored, steady wing beats with slow downstroke and rapid jerky upstroke. Flies in V or straight line formation.		

Nest Identification	
Shape	Location

habitat at major migration stopping points seriously impacting species. Mississippi Sandhill Crane National Wildlife Refuge houses most remaining Mississippi Sandhill Cranes, and there is an active propagation program.



Dead sticks, moss, reeds, and grass • built by both sexes • 2 buff eggs marked with olive or 2 olive eggs marked with brown; subelliptical to long oval, 3.7–3.8 x 2.3 inches.

Plumage Sexes similar	Habitat	Migration Some migrate	Weight 7.4 pounds
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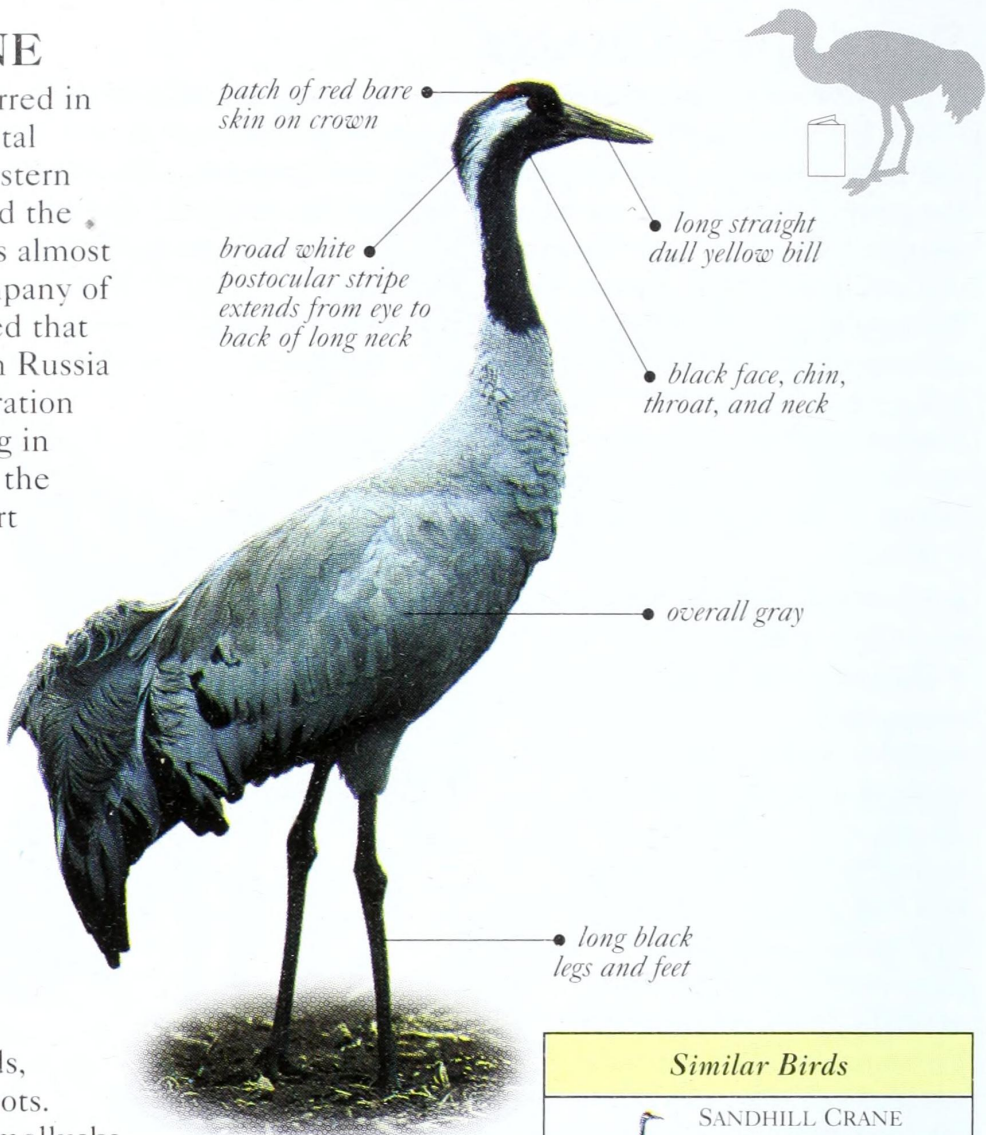
DATE _____ TIME _____ LOCATION _____

Family GRUIDAE	Species <i>Grus grus</i>	Length 44–51 inches	Wingspan 79–91 inches
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COMMON CRANE

This Eurasian bird has occurred in North America as an accidental vagrant to central Alaska, western Canada, the Great Plains, and the Midwest. These appearances almost always have been in the company of Sandhill Cranes. It is believed that Sandhills breeding in eastern Russia may be accompanied in migration by Common Cranes breeding in the same area. In flight note the black flight feathers and short tail. Juvenile has brown mottled gray plumage with a brown head and neck.

- **SONG** Bold piercing trumpeting or at times a low mellow warble.
- **BEHAVIOR** Very wary. If threatened usually will leave nest quietly and not take flight until a distance away. Flies with head and legs outstretched. May allow close approach. Feeds in dry places, preferring seeds, berries, grain, and young shoots. Frequently eats insects and mollusks, occasionally small mammals, fish, and frogs.
- **BREEDING** Monogamous. Precocial. During breeding season several birds gather and take turns performing characteristic displays such as squatting, hopping, and calling, with half-opened wings.
- **NESTING** Nest sometimes used several years consecutively. Incubation 30 days by both sexes in turn; female incubates at night. Precocial young leave nest soon after hatching; tended by both parents. First flight at 65–70 days. 1 brood per year.



Similar Birds



SANDHILL CRANE
Gray body; red bare skin also on forehead and lores; lacks black-and-white pattern on head and neck; only primary feathers on wing are black
• juveniles very similar but Common Crane has black in entire trailing edge of wing.



- **POPULATION** Accidental vagrant to Midwest, Great Plains, western Canada, and central Alaska. Uncommon to fairly common, local in Eurasia.
- **CONSERVATION** Not threatened; some concern due to loss of wetland habitat.

Flight Pattern	
Straight flight with deep even wing beats, slow downstroke, and quick upstroke. Flies in V formation during migration.	
Nest Identification	
Shape	Location

Matted grasses • in shallow water or set on reeds or in a thicket • 2 brownish or olive eggs with red-brown spots; elongated ovoid, 3.8 x 2.3 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 12.1 pounds
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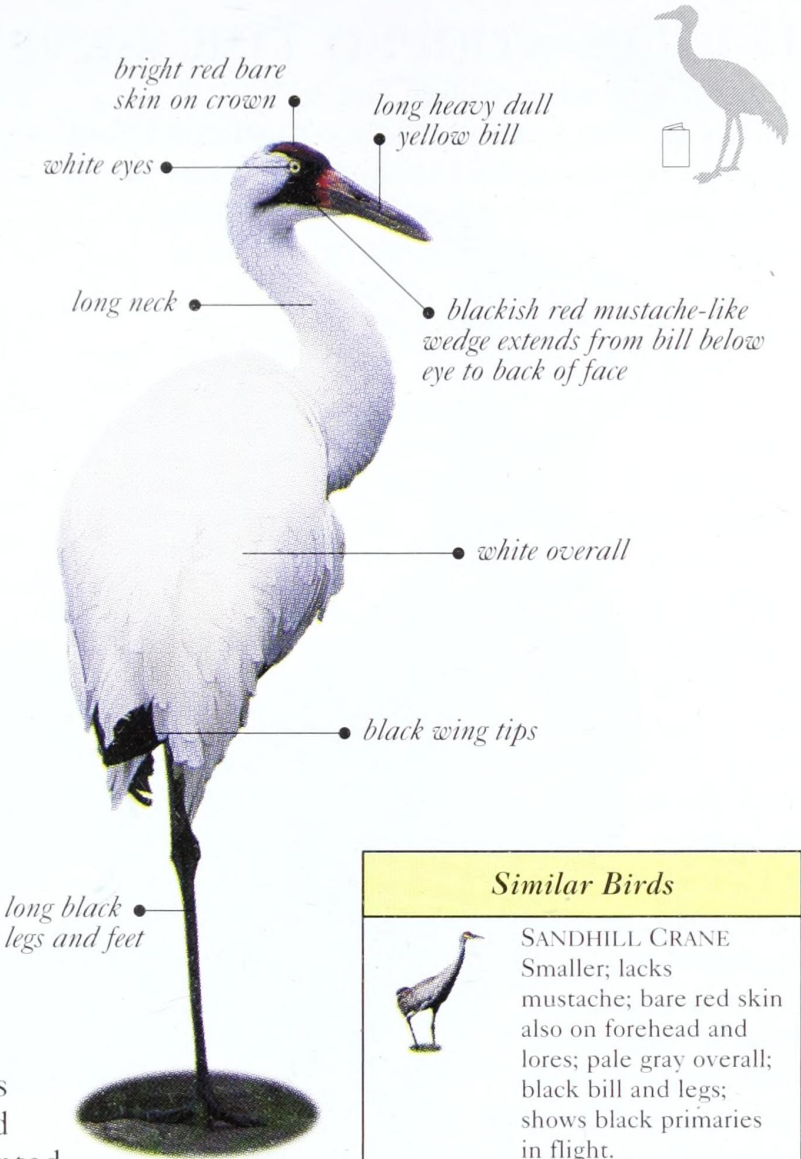
DATE _____ TIME _____ LOCATION _____

Family GRUIDAE	Species <i>Grus americana</i>	Length 52 inches	Wingspan 87 inches
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WHOOPING CRANE

The stately Whooping Crane is the tallest bird in North America and one of the most endangered. By 1941 only fifteen individuals wintering on the Texas coast were left in the wild. The breeding grounds of these birds were unknown until 1954 when they were discovered in Wood Buffalo National Park in Alberta in central Canada. Intensive conservation and management programs have slowly increased this flock to more than one hundred fifty individuals. The juvenile is white with a rusty red head and neck and has rusty red feathers scattered over rest of its body.

- **SONG** Piercing trumpetlike *ker-loo ker-lee-loo* that can be heard for more than 2 miles. This volume is achieved by the 5-foot-long trachea coiled within the keel of the breast bone.
- **BEHAVIOR** Eats fish, frogs, small mammals, mollusks, crustaceans, corn, other grains, and roots of water plants.
- **BREEDING** Monogamous; mates for life. In courtship dance, one of pair begins by lowering head and flapping wings. Bird leaps 3 feet in air with head back, bill pointed skyward, neck arched over back, legs stiff, and wings flapping. Mate runs forward a few steps, pumping head up and down and flapping wings. Then both leap into air and bounce up and down. The silent dance ends as suddenly as it begins. On wintering grounds do not form flocks but maintain family groups of 3–4 birds and hold winter territory.
- **NESTING** Incubation 29–35 days by both sexes. Precocial young abandon nest soon after hatching; tended by both parents. First flight at approximately 80–90 days. 1 brood per year.



Similar Birds	
	SANDHILL CRANE Smaller; lacks mustache; bare red skin also on forehead and lores; pale gray overall; black bill and legs; shows black primaries in flight.
	AMERICAN WHITE PELICAN Larger; white with black outer secondaries, primaries, and upper primary coverts; short legs; flies with neck folded and long yellow-orange bill resting on breast.

Flight Pattern	
	
Typical crane flight of slow downward wing beat with powerful flick or jerk on upbeat. Flies in V formation in migration.	

Nest Identification	
Shape 	Location 

- **POPULATION** Increasing. Populations introduced in Idaho and Florida.
- **CONSERVATION** Endangered, but public education as well as intensive management and protection programs, slowly succeeding.



Soft or coarse grass, reeds, or sod • built on a mound by both sexes
• 1–3 cream-olive buff eggs marked with brown; ovate or elliptical ovate, 3.9 x 2.5 inches.

Plumage Sexes similar	Habitat 	Migration Migratory	Weight 12.8 pounds
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DATE _____ TIME _____ LOCATION _____

Family BURHINIDAE	Species <i>Burhinus bistriatus</i>	Length 18–20 inches	Wingspan 31–36 inches
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DOUBLE-STRIPED THICK-KNEE

This crow-sized ploverlike bird is native to grasslands from southern Mexico to northern South America but has strayed to southern Texas. In some places it is kept as a pet and a sentinel. It is named for its large knee joints. The long legs are well adapted for running, which it does in short sprints like a plover with its head pulled back on its shoulders. Mostly a nocturnal bird, it has large eyes for night vision. In flight it has a conspicuous black-and-white-banded tail and a broken white wing stripe.

• **SONG** Loud clipped barking or clucking, *kah-kah-kah* or *kyeh-kyeh-kyeh*. Sometimes sounds like frogs. Also shrilled *kwehr-kwehr* and *kreh-ehr*.

• **BEHAVIOR** Nocturnal. Resting and preening by day. Inconspicuous despite large size; often rests in shade of shrub, screened by vegetation. Prefers to run rather than fly when disturbed. Feeds mostly at night on insects, small reptiles, amphibians, mollusks, crustaceans, and seeds.

• **BREEDING** Monogamous.

• **NESTING** Incubation 25–27 days by female, usually assisted by male. May move eggs to new location when threatened. Young are precocial and may leave nest within 1 day after hatching, but still are tended by both parents. 1–2 broods per year.

• **POPULATION** Fairly common to common in breeding range.

Flight Pattern

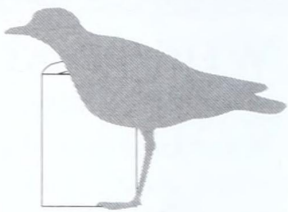


Swift short direct flight.

Nest Identification

Shape  Location 

Eggs laid directly on ground, usually in shallow unlined depression near scattered brush and trees • 2 eggs, white to buff and heavily spattered with grays or browns; 2.2 x 1.5 inches.



Plumage Sexes similar	Habitat 	Migration Nonmigratory	Weight 1.7 pounds
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DATE _____ TIME _____ LOCATION _____

Family CHARADRIIDAE	Species <i>Vanellus vanellus</i>	Length 12–13 inches	Wingspan 21–24 inches
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NORTHERN LAPWING

Easily identified by its crest, the Northern Lapwing fits a niche in Eurasia similar to that of the Killdeer in North America. It is the only crested plover to occur in North America, usually in winter when the sides of its head and crest are buff-colored. On rare occasions winter storms have blown numbers of this bird across the Atlantic. The Northern Lapwing often feeds at night, especially during a full moon. Its broad rounded wings have black tips on all but the outer 3–4 primary feathers, which have white tips. When bird is in flight it shows white underwing linings and a white tail with a broad black subterminal band.

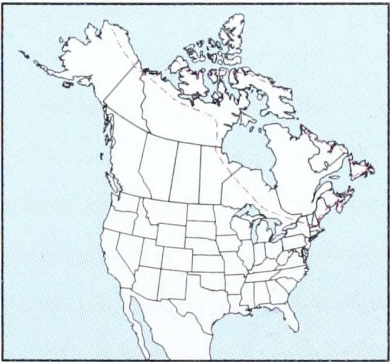
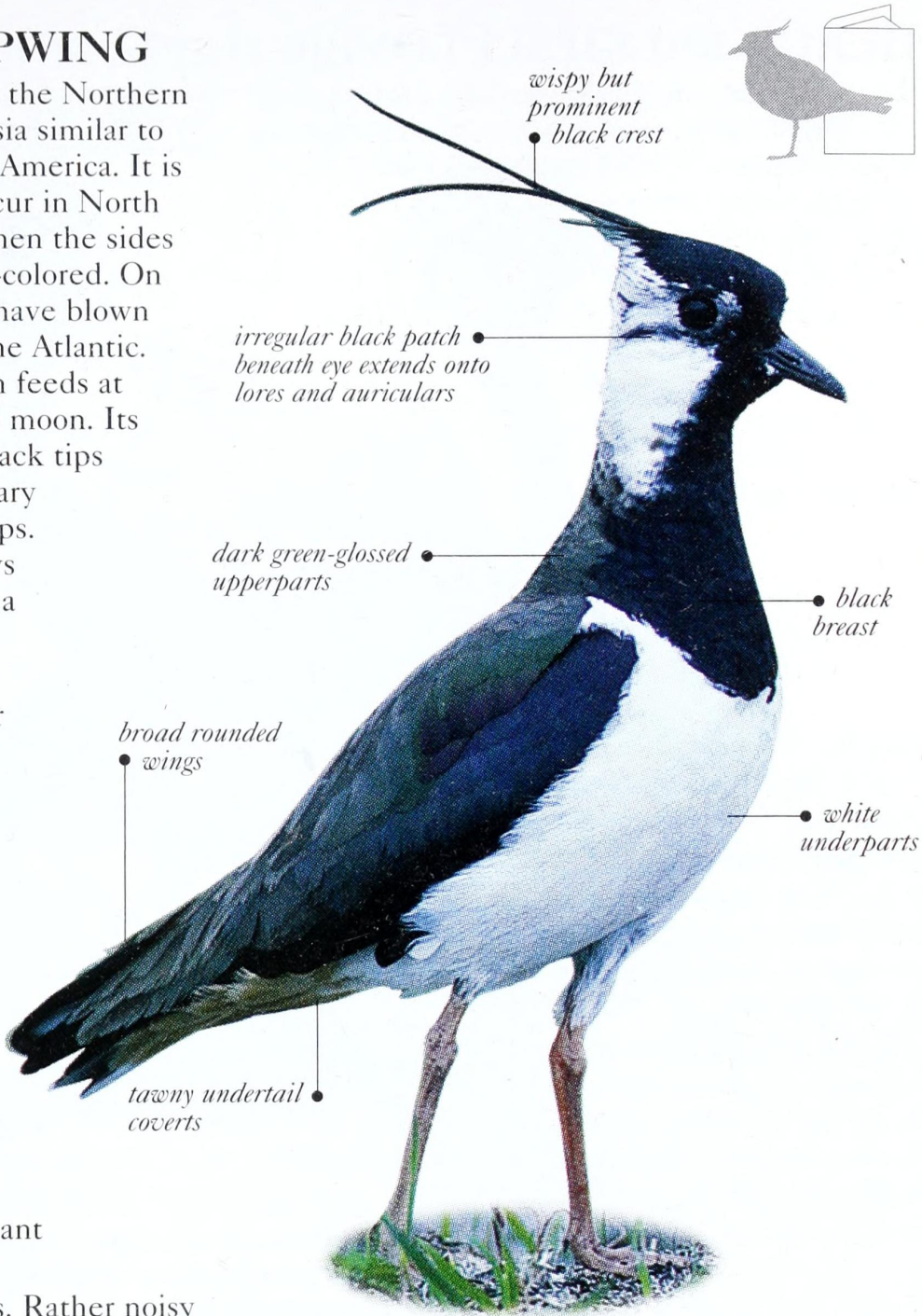
• **SONG** A whistled *wee-ip* or *pee-wit*. A territorial song of *coo-wee-ip* and *wee-willuch-coo-wee-ip*. In flight, often calls *pee-wit* repeatedly.

• **BEHAVIOR** On breeding grounds in Greenland, Europe, and Asia, stays in large flocks when not breeding. Noisy and obvious in flight. Often chases larger birds, including raptors, from territory. Feeds chiefly on wide variety of invertebrates, taking some plant materials and their seeds.

• **BREEDING** Monogamous. Rather noisy when breeding. Male has bowing display, revealing its tawny undertail coverts and accompanied by wheezing sounds.

• **NESTING** Incubation 24–28 days by both sexes. Young precocial. First flight at 35–40 days. 1 brood per year.

• **POPULATION** Casual in fall and winter in northeastern states and provinces; accidental elsewhere in the the eastern US as far south as Florida. Common in Eurasia.



Flight Pattern

Strong direct flight on rapidly beating wings.

Nest Identification

Shape Location

Lined with grasses • usually on slightly raised ground • built by male • 4–5 pale brown eggs, blotched with black, 1.85 inches long.

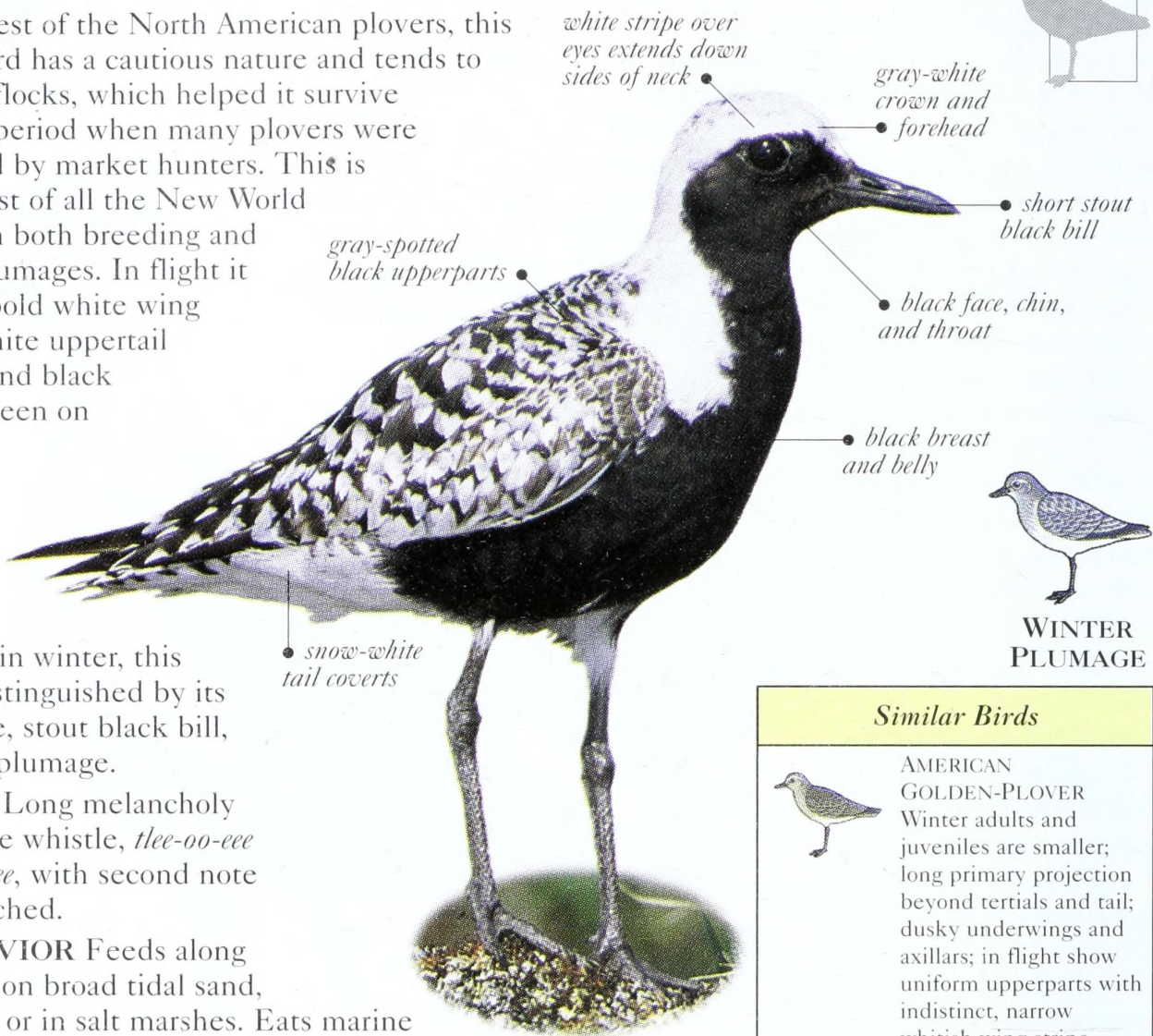
Plumage Sexes similar	Habitat	Migration Migratory	Weight 7.4 ounces
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DATE _____ TIME _____ LOCATION _____

Family CHARADRIIDAE	Species <i>Pluvialis squatarola</i>	Length 11.5–13 inches	Wingspan 22–25 inches
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BLACK-BELLIED PLOVER

The largest of the North American plovers, this stocky bird has a cautious nature and tends to travel in flocks, which helped it survive during a period when many plovers were destroyed by market hunters. This is the grayest of all the New World plovers in both breeding and winter plumages. In flight it shows a bold white wing stripe, white uppertail coverts, and black axillars. Seen on



mudflats in winter, this bird is distinguished by its larger size, stout black bill, and gray plumage.

- **SONG** Long melancholy triple-note whistle, *thee-oo-eee* or *pee-oo-ee*, with second note lower-pitched.
- **BEHAVIOR** Feeds along seacoasts on broad tidal sand, mudflats, or in salt marshes. Eats marine worms, insects, small mollusks, and crustaceans.
- **BREEDING** Monogamous.
- **NESTING** Incubation 26–27 days by both sexes. Young precocial; leave nest soon after hatching. Tended by both sexes for 14 days, then by male only. First flight at 23–35 days. 1 brood per year.
- **POPULATION** Uncommon to common migrant on both coasts and in Great Lakes; uncommon to rare elsewhere in interior.

Similar Birds



AMERICAN GOLDEN-PLOVER
Winter adults and juveniles are smaller; long primary projection beyond tertials and tail; dusky underwings and axillars; in flight show uniform upperparts with indistinct, narrow whitish wing stripe.



PACIFIC GOLDEN-PLOVER
Winter adults and juveniles are smaller; smaller black bill; buff cast to plumage; buff spots and bars on underparts.

Flight Pattern



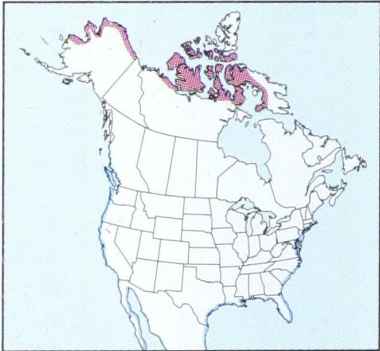
Strong direct flight with rapid wing beats.

Nest Identification

Shape  Location 

On tundra breeding grounds cycles between uncommon, common, and rare. Difficult to detect population trends.

- **CONSERVATION** Stopover staging areas for foraging migrants important to population stability.



Tundra moss • lined with dried grasses, moss, and lichens • on dry ground with good visibility • male begins scrape; lined by female • 3–5 gray, green, whitish, or brown eggs spotted and scrawled with dark brown and black, 2 inches long.

Plumage Sexes similar	Habitat 	Migration Migratory	Weight 7.8 ounces
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DATE TIME LOCATION

Family CHARADRIIDAE	Species <i>Pluvialis apricaria</i>	Length 11 inches	Wingspan 22 inches
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EUROPEAN GOLDEN-PLOVER

Named for its golden color, this medium-sized bulky plover is the southernmost nester and shortest-distance migrant of any bird in its genus. In North America it is an irregular spring visitor to Newfoundland when in migration it overshoots southern Greenland, where it breeds. It is larger and plumper than the American Golden-Plover, with a shorter bill and extensive white on the sides of the neck that almost meets on the breast and extends along the sides and flanks to the undertail coverts. In flight the whitish stripe extends as a bar on the base of the upper primaries and the underwings are white. Males and

females are similar but some females have white-tipped feathers on the blackish face. Winter adults show dull golden brown upperparts and underparts and a white belly.

- **SONG** Melancholy drawn-out whistle, *tooee*.
- **BEHAVIOR** Shy and alert. Wary. Will leave nest long before approached and fly around closely or watch from a distance calling anxiously. Eats mainly earthworms but also consumes wide range of invertebrates, including mollusks, slugs, snails, insects, and their larvae; eats some vegetable matter.
- **BREEDING** Monogamous. Performs high circling display.
- **NESTING** Incubation 28–31 days by both sexes. Young

precocial; leave nest day of hatching. Tended by both sexes. First flight at 25–33 days. 1 brood per year.

- **POPULATION** Casual straggler to Newfoundland in spring. Uncommon to fairly common on breeding grounds.

Flight Pattern



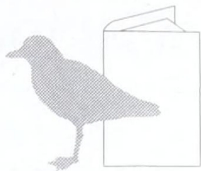
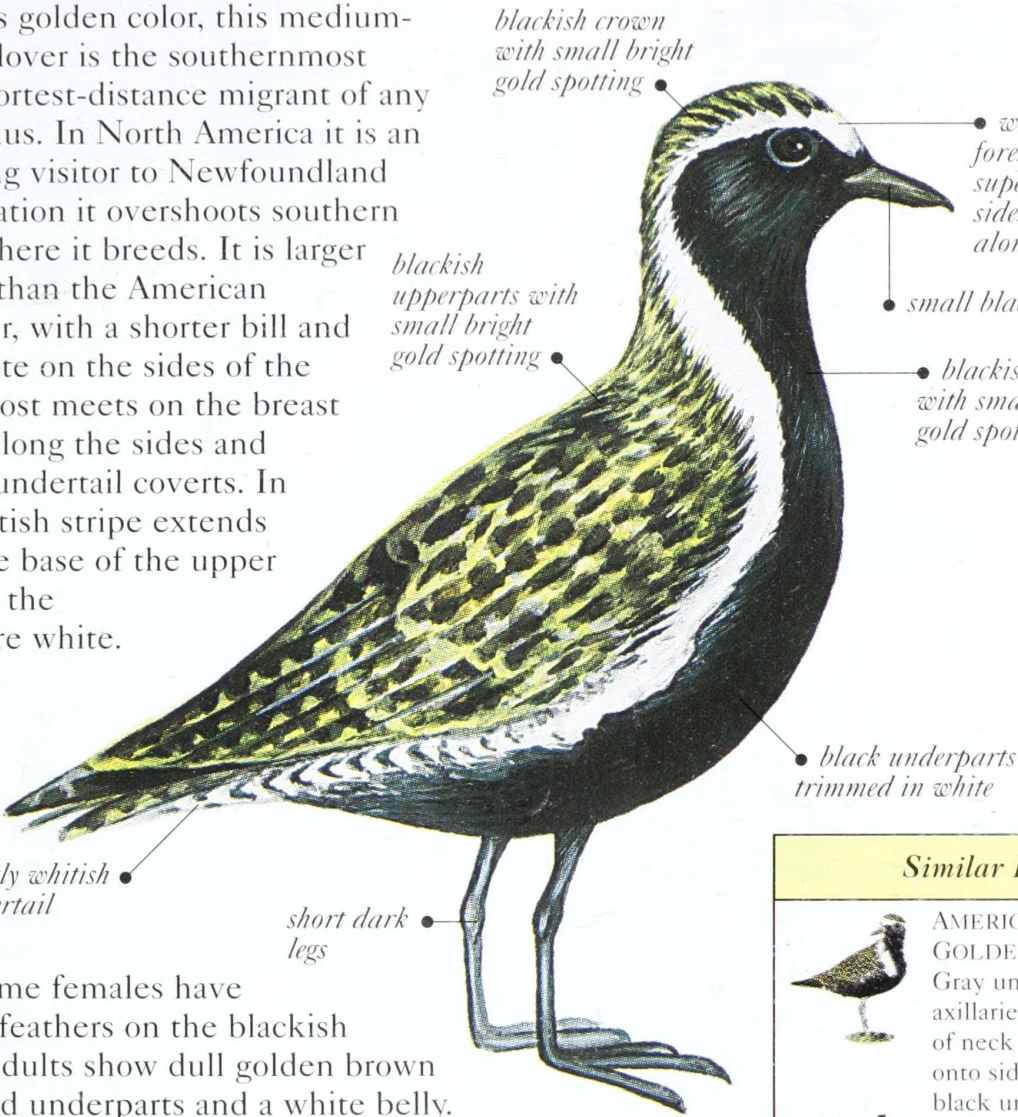
Swift direct flight with rapid wing beats.

Nest Identification

Shape 

Location 

Lined with stems, leaves, and lichens • on raised pile of lichens or grass • 4 yellowish eggs with thick blotches; pyriform, 2 inches long.

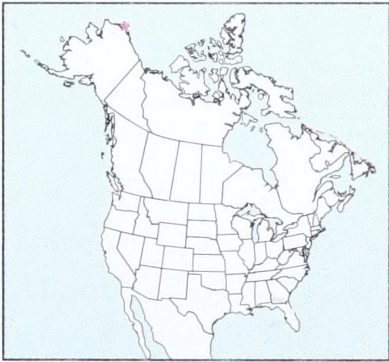


Similar Birds

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AMERICAN GOLDEN-PLOVER
Gray underwings and axillaries; white on sides of neck does not extend onto sides; completely black underparts.
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PACIFIC GOLDEN-PLOVER
Smaller; more brightly colored; gray underwings and axillaries; sides framed with white; black-barred flanks and undertail.



Plumage Sexes similar	Habitat 	Migration Migratory	Weight 7.5 ounces
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DATE _____ TIME _____ LOCATION _____

Family CHARADRIIDAE	Species <i>Pluvialis dominica</i>	Length 10–11 inches	Wingspan 18–22.5 inches
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AMERICAN GOLDEN-PLOVER

This expert long-distance migrant flies at a rate of sixty miles per hour and covers thousands of miles per year between Arctic tundra nesting grounds and winter quarters as far away as Argentina. Once an abundant bird, the American Golden-Plover was almost eradicted by market hunters during the late 1800s. Winter adults and

juveniles are brown overall with darker upperparts than underparts and lack the distinctive black-and-white markings. In flight in all plumages the uppertail coverts and back are the same color, the underwings are gray throughout, and there is an indistinct pale wing stripe. Primaries of standing birds extend well past the tail.

- **SONG** Shrieking *ku-weep* or *quee-dle*.
- **BEHAVIOR** Often flies in small swiftly moving flocks. Holds wings above back after alighting; often bobs head. Feeds on insects (mostly grasshoppers, crickets, and larvae), small mollusks, and crustaceans. On tundra often gorges on crowberry in preparation for autumn migration.
- **BREEDING** Monogamous.
- **NESTING** Incubation 26–27 days by both sexes in turn; male by day, female at night. Precocial young abandon nest soon after hatching. Tended by both sexes. First flight at 21–24 days.

1 brood per year.

- **POPULATION** Uncommon. May be limited because of habitat loss on South American winter range; perhaps never fully recovered from 19th-century market hunting.

Flight Pattern



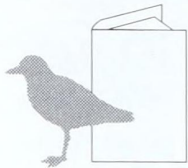
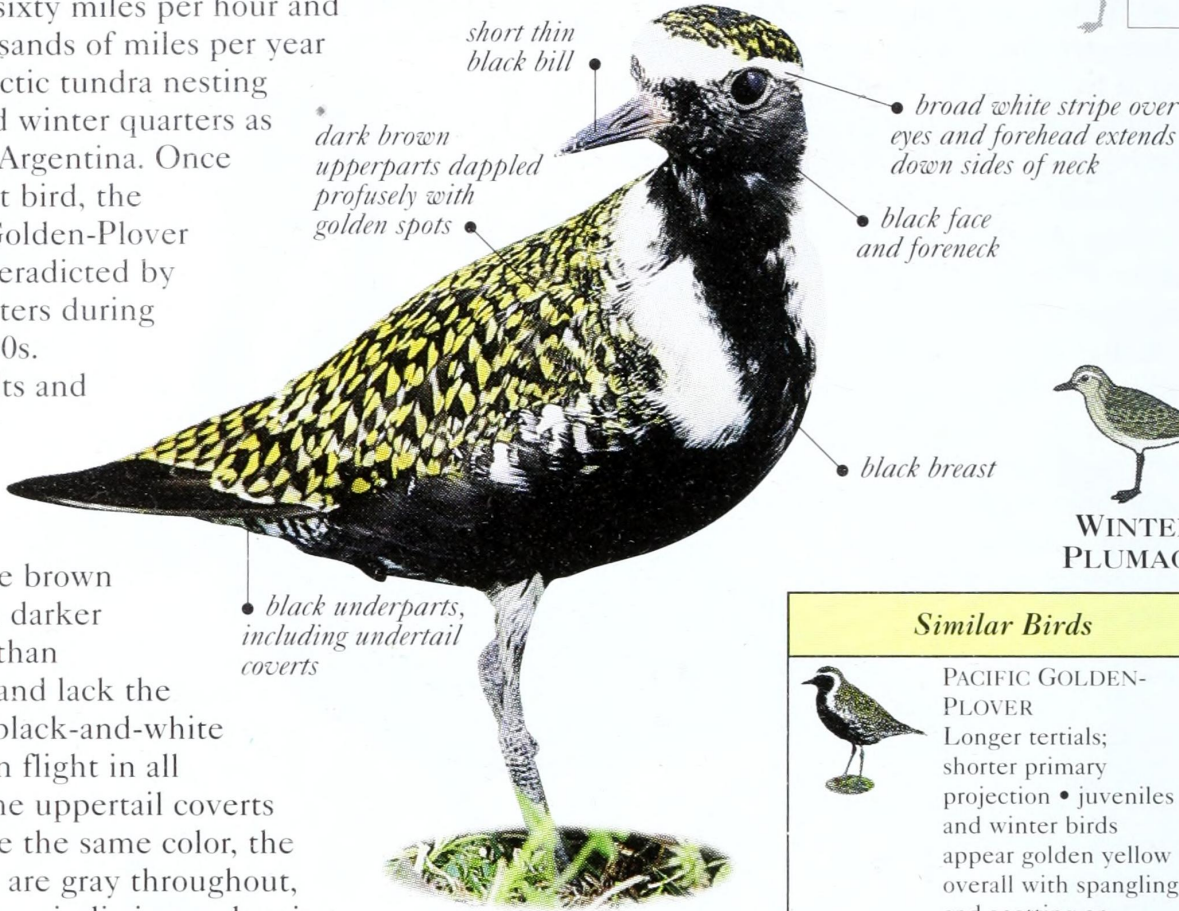
Swift strong direct flight on steady rapid wing beats. Flies in tight flocks that constantly change shape.

Nest Identification

Shape 

Location 

Lined with lichens, moss, grass, and leaves • on ground in tundra • built by male • 3–4 cinnamon to light buff or cream eggs marked with black and brown spots and blotches, 1.9 inches long.



WINTER PLUMAGE

Similar Birds



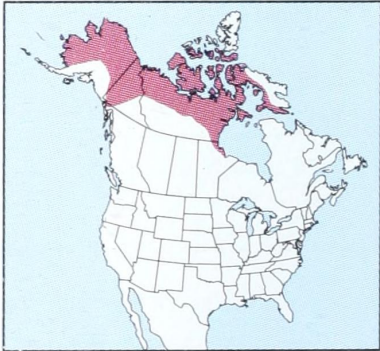
PACIFIC GOLDEN-PLOVER
Longer tertials; shorter primary projection • juveniles and winter birds appear golden yellow overall with spangling and spotting on upperparts; less contrasting crown.



MOUNTAIN PLOVER
Plainer overall without markings on lower breast or belly; pale legs.



BLACK-BELLIED PLOVER
In winter plumage has black axillaries; white rump.



Plumage Sexes similar	Habitat 	Migration Migratory	Weight 5.1 ounces
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DATE _____ TIME _____ LOCATION _____

Family CHARADRIIDAE	Species <i>Pluvialis fulva</i>	Length 9.75 inches	Wingspan 18 inches
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PACIFIC GOLDEN-PLOVER

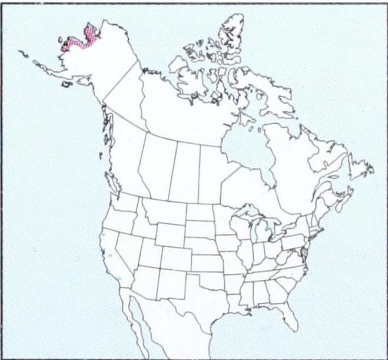
The smallest of the Golden-Plovers is most likely to be seen in the Pacific Coast states of North America in winter. It breeds on the coast and river valleys of northwestern Alaska and winters in southern Asia and on many Pacific islands, including the Hawaiian Islands – a feat requiring pinpoint navigational skills. If grassland or coastal roosting sites are unavailable, these plovers may roost on flat roofs of buildings. In winter plumage bird has mottled tawny-buff and brown upperparts, and whitish buff underparts with spots and bars.

- **SONG** Repeated, plaintive *tee-chewee*; also loud *chu-wheet*.
- **BEHAVIOR** Eats variety of invertebrates, seeds, and berries. Feeds in small flocks, often associating with other shorebirds. Makes short runs and stops and quickly stabs at ground during feeding.
- **BREEDING** Monogamous.
- **NESTING** Incubation 25 days by both sexes. Precocial young abandon nest shortly after hatching. Tended by both sexes but find own food. First flight at 26–28 days.



Similar Birds

AMERICAN GOLDEN-PLOVER
In winter dark streaking and tipping on breast feathers is broader and forms mottled or barred pattern; duller in color; primaries extend well beyond tail when standing; shorter bill and legs • in breeding plumage white stripe stops on side of neck; black undertail coverts.



Flight Pattern

Swift direct flight with rapid steady wing beats.

Nest Identification

Shape
Location

Lined with lichens, moss, grass, and dead leaves • built by male • 4 whitish to buff, cinnamon-buff, creamy buff, greenish buff, or ivory-yellow eggs heavily marked with dark black or brown; ovate pyriform, 1.9 inches long.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 5.4 ounces
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DATE

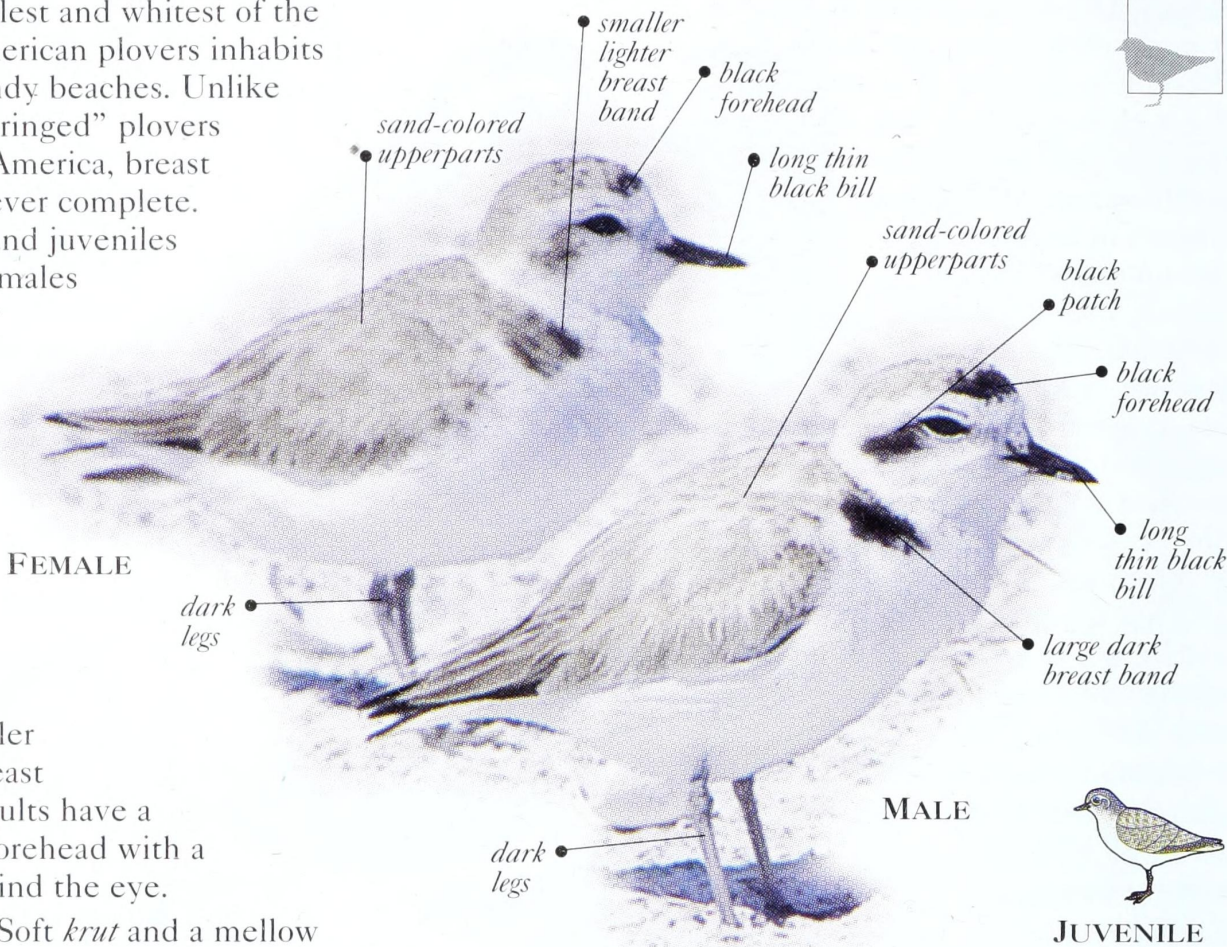
TIME

LOCATION

Family CHARADRIIDAE	Species <i>Charadrius alexandrinus</i>	Length 6–7 inches	Wingspan 13.5 inches
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SNOWY PLOVER

The smallest and whitest of the North American plovers inhabits barren sandy beaches. Unlike all other “ringed” plovers in North America, breast band is never complete. Females and juveniles resemble males except for



their smaller lighter breast bands. Adults have a blackish forehead with a patch behind the eye.

- **SONG** Soft *krut* and a mellow *kuwheet* or *pee-e-et*.
- **BEHAVIOR** Feeds like Sanderlings, chasing waves in and out to glean small crustaceans and soft invertebrates from the wet sand. Inland foraging birds add small insects to their diets. Gathers in flocks in nonbreeding season. Tends to run away rapidly when approached on open flats.
- **BREEDING** Monogamous; some individuals polygamous.
- **NESTING** Incubation 24–32 days by both sexes. Young fed by both sexes. 1–2 broods per year.
- **POPULATION** Rare. Declining in some areas, especially Gulf Coast and parts of Pacific Coast.

Flight Pattern

Direct flight with swift, rapid wing beats.

Nest Identification

Shape Location

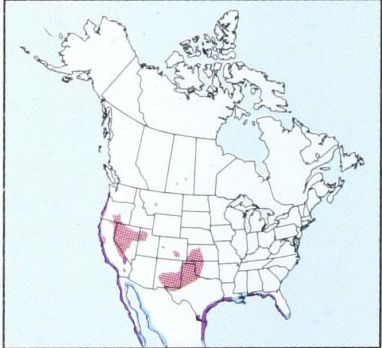
- **CONSERVATION** Human disturbance on beaches often causes failed nesting attempts. Considered threatened in parts of range. Declining populations have prompted management by state and federal agencies.

Similar Birds

PIPING PLOVER

Breeding plumage has complete breast band, yellow bill with black tip; yellow legs and feet; no dark ear patch

- in winter has dark bill, but larger; legs and feet dark but not black; lacks dark ear patch.



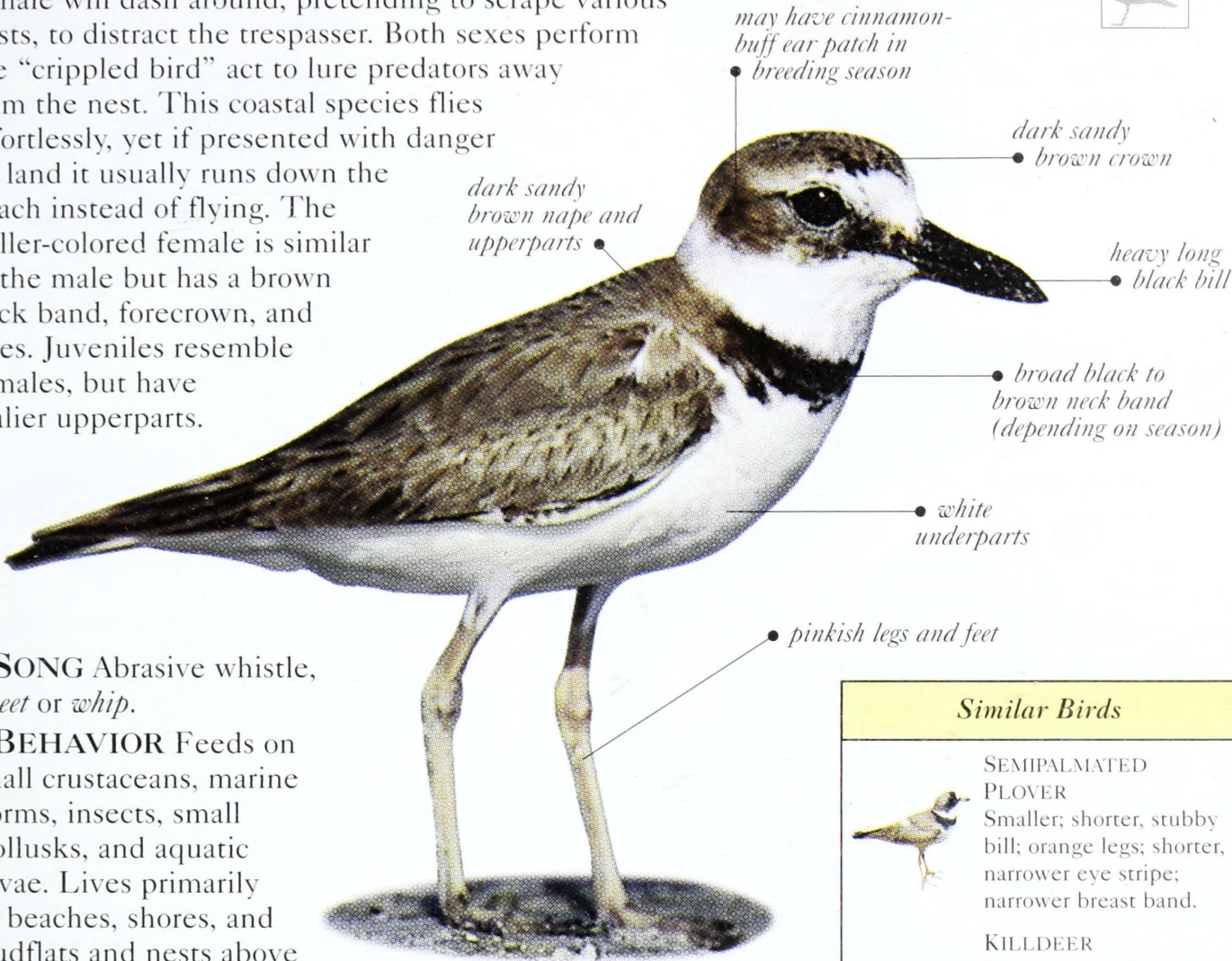
Plumage Sexes differ	Habitat	Migration Some migrate	Weight 1.4 ounces
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DATE _____ TIME _____ LOCATION _____

Family CHARADRIIDAE	Species <i>Charadrius wilsonia</i>	Length 7–8 inches	Wingspan 14–16 inches
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WILSON'S PLOVER

Like other plovers, if a human intrudes upon its nest, the female will dash around, pretending to scrape various nests, to distract the trespasser. Both sexes perform the “crippled bird” act to lure predators away from the nest. This coastal species flies effortlessly, yet if presented with danger on land it usually runs down the beach instead of flying. The duller-colored female is similar to the male but has a brown neck band, forecrown, and lores. Juveniles resemble females, but have scalier upperparts.



- **SONG** Abrasive whistle, *wheet* or *whip*.
- **BEHAVIOR** Feeds on small crustaceans, marine worms, insects, small mollusks, and aquatic larvae. Lives primarily on beaches, shores, and mudflats and nests above high-tide line. Often found near river mouths and inlets.
- **BREEDING** Monogamous. Scrape making is part of male’s courtship performance. He scrapes a hollow and invites female to join him.
- **NESTING** Incubation 23–25 days by both sexes. Young leave nest soon after hatching. First flight at 21 days. Young feed themselves, but tended by both sexes. 1 brood per year.
- **POPULATION** Fairly common to uncommon. Declining

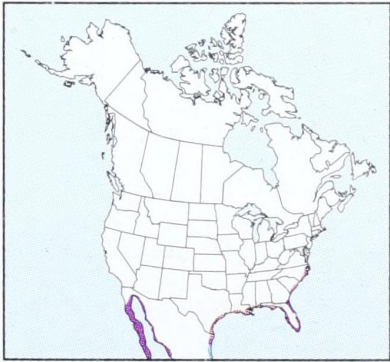
because of habitat loss and increased human disturbances during nesting season.

- **CONSERVATION** Some efforts are being made to restrict public access to beach nesting areas.

Similar Birds

SEMPIPALMATED PLOVER
Smaller; shorter, stubby bill; orange legs; shorter, narrower eye stripe; narrower breast band.

KILLDEER
Larger; red eye ring; slender black bill; 2 black bands across chest; gray-brown upperparts; bright rufous-orange rump and uppertail coverts; long rounded tail with black subterminal band.



Flight Pattern

Swift direct flight with rapid wing beats. Flocks fly in circles low over beach and water.

Nest Identification

Shape Location

Sparse lining of pebbles, shell pieces, grass, and debris • on ground • male makes several scrapes; female chooses one • 2–3 buff eggs blotched with brown and black, 1.4 inches long.

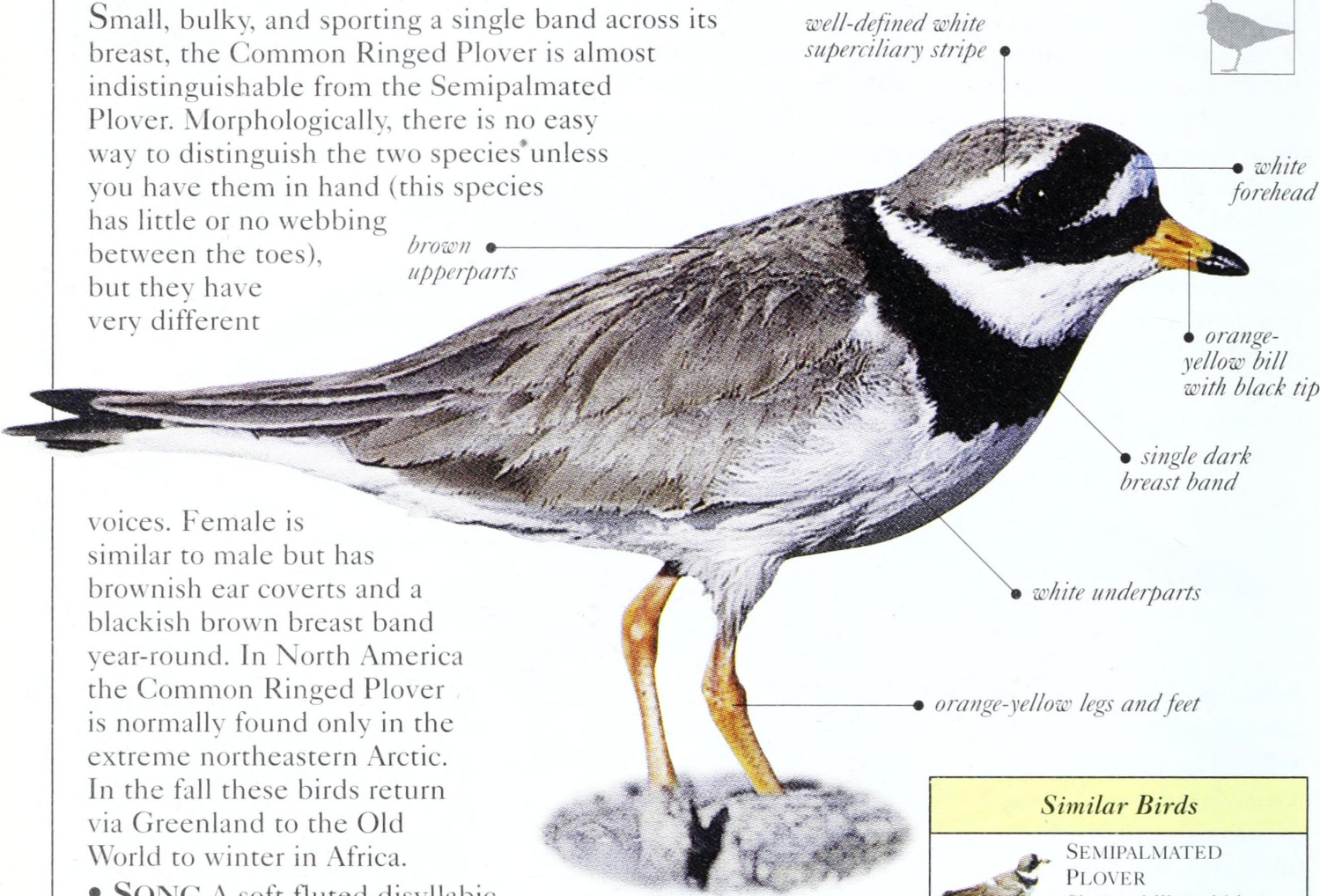
Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.9 ounces
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DATE _____ TIME _____ LOCATION _____

Family CHARADRIIDAE	Species <i>Charadrius hiaticula</i>	Length 7.5 inches	Wingspan 15 inches
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COMMON RINGED PLOVER

Small, bulky, and sporting a single band across its breast, the Common Ringed Plover is almost indistinguishable from the Semipalmated Plover. Morphologically, there is no easy way to distinguish the two species* unless you have them in hand (this species has little or no webbing between the toes), but they have very different



voices. Female is similar to male but has brownish ear coverts and a blackish brown breast band year-round. In North America the Common Ringed Plover is normally found only in the extreme northeastern Arctic. In the fall these birds return via Greenland to the Old World to winter in Africa.

- **SONG** A soft fluted disyllabic *tu-lee* or *too-ie*.
- **BEHAVIOR** Gregarious. Frequents coastal mudflats and sandy, pebbly seashores. Eats worms, aquatic insects, crustaceans, and mollusks. Normally wary and alert but sometimes allows fairly close approach. Performs vigorous distraction display with “crippled bird” act to lead intruders away from nest. In winter may occur inland on lakeshores and river banks, or in cultivated fields and meadows
- **BREEDING** Monogamous. Gregarious.
- **NESTING** Incubation 23–25 days by both sexes. Precocial young leave nest shortly after hatching. Tended by both sexes. First flight at 24 days. 1–2 broods per year.

Flight Pattern

A diagram showing a bird in flight with a dashed line indicating its path. The bird is shown in profile, flying to the right. Below the diagram, the text reads: "Direct flight with rapid wing beats."

Nest Identification

Shape Location

Depression in beach sand • lined with bits of shells and driftwood, small pebbles, and rabbit droppings • above high-water mark on seashore • 3–4 buff eggs lightly spotted with brown or black, elliptical, 1.3 inches long.

Similar Birds



SEMPIPALMATED PLOVER
Shorter bill; webbing between toes; thinner breast band; smaller auricular patch; shorter superciliary line.



LITTLE RINGED PLOVER
Smaller; lacks clear wing bar; thick bright yellow eye ring; dull pink legs; narrower breast band.



Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.0 ounce
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DATE _____ TIME _____ LOCATION _____

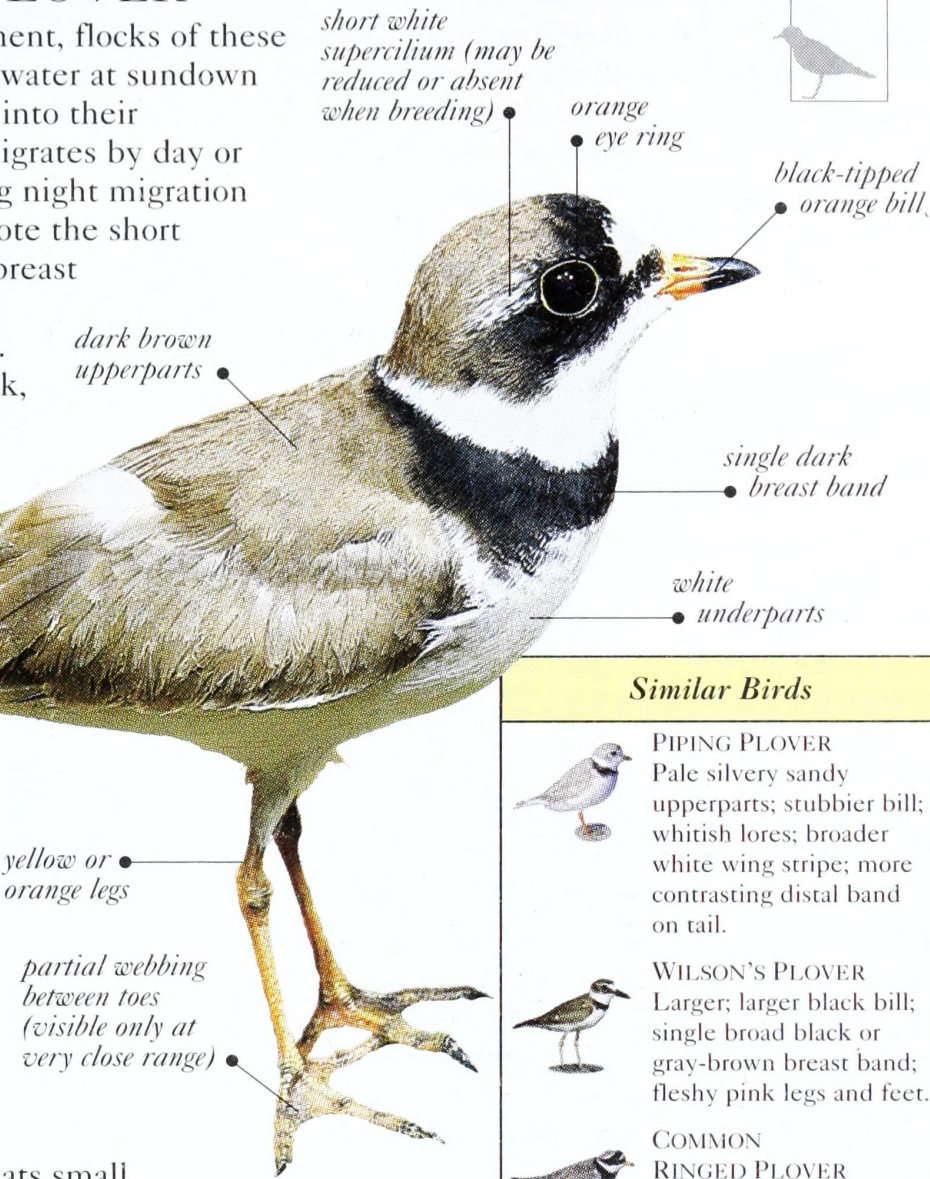
Family CHARADRIIDAE	Species <i>Charadrius semipalmatus</i>	Length 7 inches	Wingspan 14–15.25 inches
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SEMIPALMATED PLOVER

Migrating throughout the continent, flocks of these plovers often assemble near the water at sundown to roost with their heads tucked into their feathers. This small shorebird migrates by day or night, and some are killed during night migration when they strike lighthouses. Note the short black-tipped orange bill, single breast band, yellow-orange legs, and upperparts the color of wet sand. In winter the bill is entirely black, and the breast band turns gray-brown. In flight this plover shows a white wing stripe and white

outer tail corners. Juveniles are similar to the winter adult but with darker, duller colored legs.

- **SONG** Clear whistled *chee-wee, chur-wee, chu-weet, or tyoo-eep.*
- **BEHAVIOR** Runs on sand with head erect, then suddenly probes ground. Along seashore eats small mollusks, marine worms, small crustaceans, and eggs of marine animals. In migration often feeds in mixed flocks with other shorebirds, usually in wet sand or mud near water's edge.
- **BREEDING** Monogamous. Loosely colonial.
- **NESTING** Incubation 23–25 days by both sexes. Precocial young leave nest soon after hatching. First flight at 23–31 days. Young feed themselves but tended by both sexes. Has 1 brood per year.



Similar Birds

-  **PIPING PLOVER**
Pale silvery sandy upperparts; stubbier bill; whitish lores; broader white wing stripe; more contrasting distal band on tail.
-  **WILSON'S PLOVER**
Larger; larger black bill; single broad black or gray-brown breast band; fleshy pink legs and feet.
-  **COMMON RINGED PLOVER**
Larger; visible webbing between outer and middle toes but not between inner and middle toes; broader breast band; longer white superciliary stripe; different call.

Flight Pattern

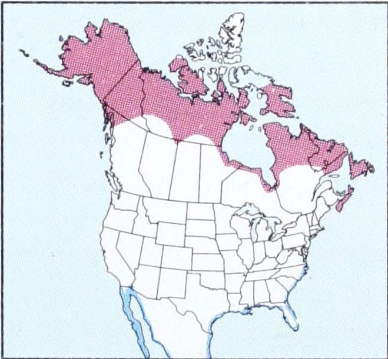


Strong direct flight with rapid wing beats. Sometimes flies in small fast-wheeling flocks.

Nest Identification

Shape  Location 

Lined with shell fragments or grasses • on ground • built by male
• 3–4 olive-buff to olive-brown eggs marked with dark brown or black; pyriform, 1.3 inches long.



Plumage Sexes similar	Habitat 	Migration Migratory	Weight 1.7 ounces
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DATE _____ TIME _____ LOCATION _____

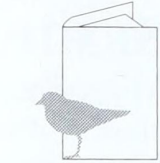
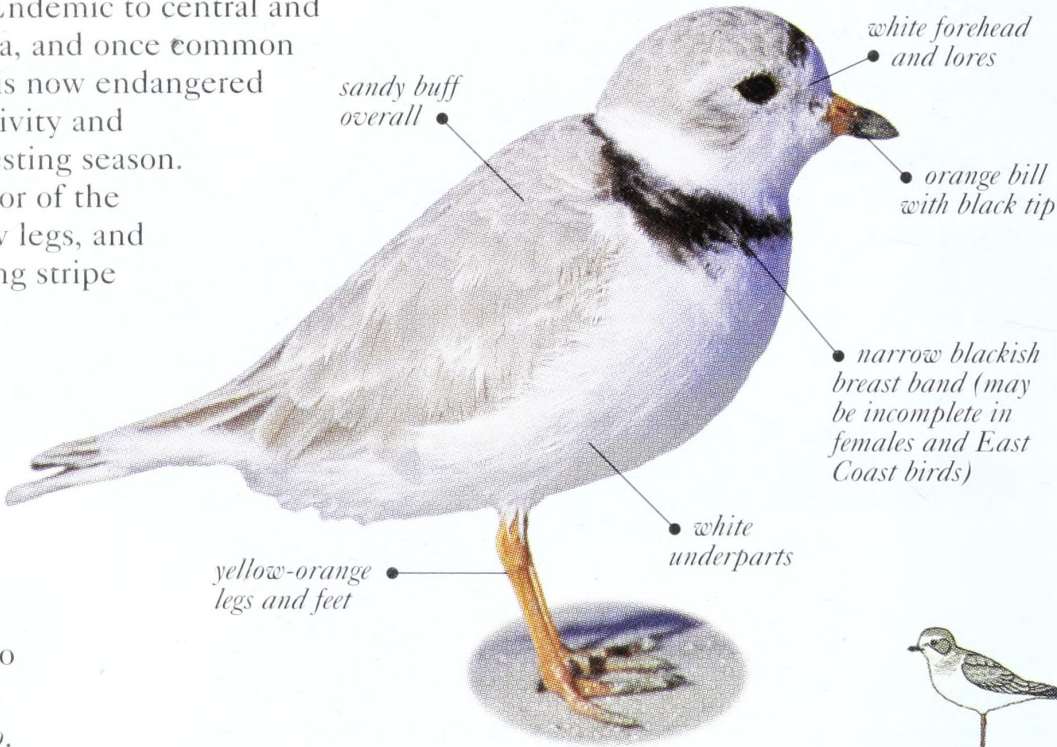
Family CHARADRIIDAE	Species <i>Charadrius melodus</i>	Length 7.25 inches	Wingspan 14–15.5 inches
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PIPING PLOVER

This plover is difficult to spot until it moves, as its plumage blends in with the dry summer sand along the Atlantic Coast and south shores of the Great Lakes region. Endemic to central and eastern North America, and once common on beaches, this bird is now endangered because of human activity and disturbance during nesting season. Note the dry sand color of the upperparts, the yellow legs, and in flight the white wing stripe and white rump with contrasting black tail tip. Winter plumaged birds have a blackish orange bill, darker duller orange legs, and the sandy breast band may be broken. Juveniles are similar to winter adults.

- **SONG** Clear *peep-lo*.
- **BEHAVIOR** Gregarious in post-breeding seasons, but territorial when nesting. Sprints, then stops to inspect sand with head cocked to one side; picks food off ground. Eats fly larvae, beetles, crustaceans, and marine worms. Often feeds higher on the beach (where upperparts more closely match sand) than other small plovers. In migration feeds in mixed flocks with other shorebirds.
- **BREEDING** Monogamous. Loosely colonial. Territorial during breeding season.
- **NESTING** Incubation 26–28 days by both sexes. Precocial young stay in nest 20–35 days. Fed by both sexes. Has 1 brood per year.
- **POPULATION** Uncommon to rare and declining in many parts of range, especially in Midwest and Great Lakes. Uncommon migrant inland.

- **CONSERVATION** Endangered; almost eliminated as a breeder in Great Lakes region due to human activity on beaches. Irregular pattern of water release from dams affects nesting on interior rivers.



WINTER PLUMAGE

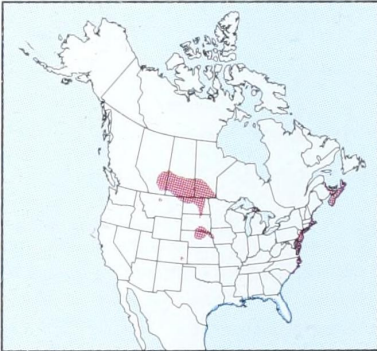
Similar Birds



SEMPIPALMATED PLOVER
Dark brown upperparts the color of wet sand; dark rump in flight.



SNOWY PLOVER
Smaller; long dark legs; slim dark bill; lateral dark breast patches; lacks white rump patch in flight.



Flight Pattern



Wild direct flight with twists and turns and rapid steady wing beats; often in small flocks.

Nest Identification

Shape 	Location 
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Lined with broken shells, small stones, or driftwood • on sandy shore of lake or ocean well above high-water mark • built by both sexes • 3–4 pale buff eggs blotched with black and dark brown; short oval to short pyriform, 1.2 inches long.

Plumage Sexes similar	Habitat  	Migration Migratory	Weight 1.9 ounces
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DATE _____ TIME _____ LOCATION _____

Family CHARADRIIDAE	Species <i>Charadrius vociferus</i>	Length 9–10.5 inches	Wingspan 19–21 inches
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KILLDEER

Named for its distinctive call, this bird is the largest of the ringed plovers and the only double-banded plover within its range. Perhaps the most familiar shorebird in North America, in summer it is found across almost the entire continent south of the tundra. In flight note the long pointed wings with long white stripe and the rufous-gold rump and long tail with subterminal black tail band. Juveniles are similar in appearance but have only one black band across the chest.

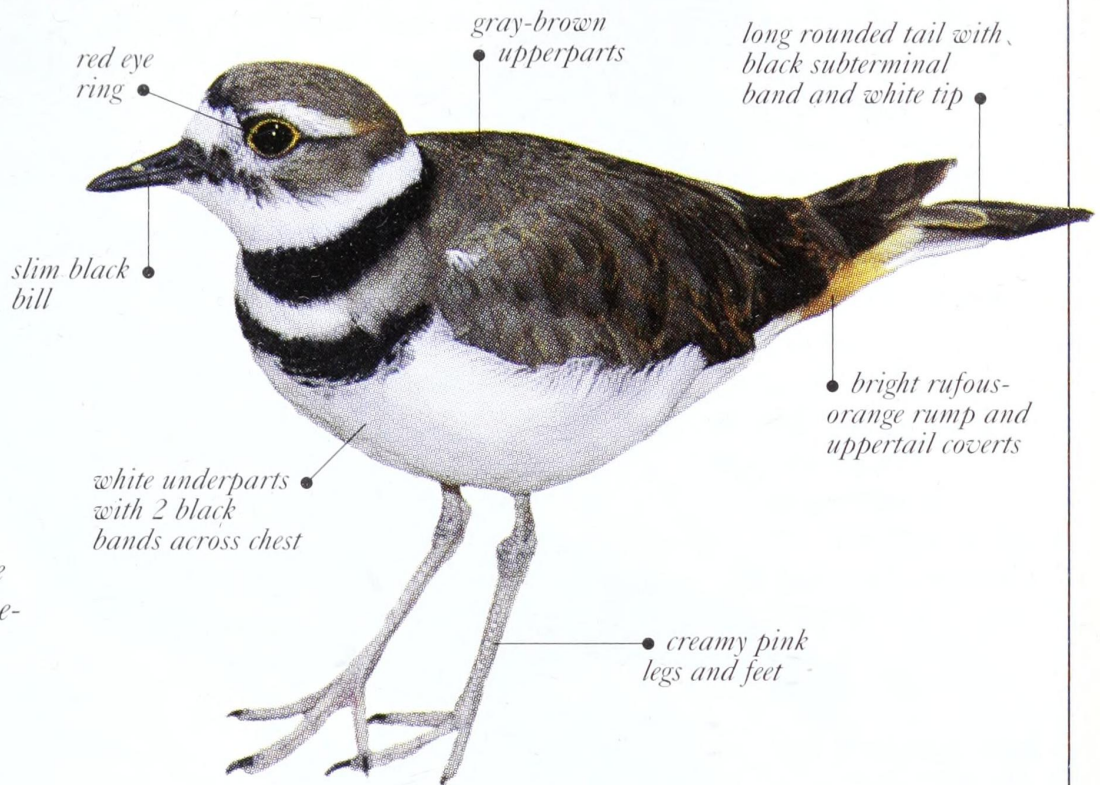
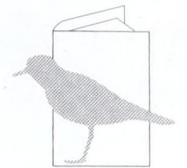
• **SONG** Loud cry, *kill-dee* or *kill-deear* or *kill-deeah-dee-dee*. And ascending *dee-ee*. Also long trilled *trrrrrrrr* during display or when young are threatened.

• **BEHAVIOR** Alternately runs, then stands still as though to look or listen, then dabs suddenly with bill at ground. More than 98 percent of food consists of insects from riverbanks, golf courses, fields, and even lawns. Runs well. Leads intruders away from nest and young with “broken wing” act, rapid calls, one or both wings dragging, tail spread, and often limping or listing to one side. Once lured far enough from the nest/young, the “crippled” bird suddenly “heals” and flies away, calling all the while.

• **BREEDING** Monogamous. Solitary nester. Often returns to same mate and breeding site.

• **NESTING** Incubation 24–28 days by both sexes. Young leave nest soon after hatching and feed themselves, but tended by parents. First flight at 25 days. 2 broods per year.

• **POPULATION** Abundant to common in the northernmost regions of the range.



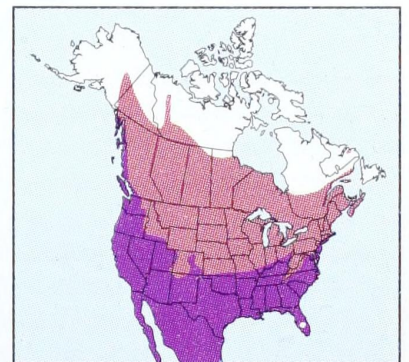
Similar Birds



SEMPIPALMATED PLOVER
Smaller; single breast band; rump and tail same color as back; yellow-orange legs.



WILSON'S PLOVER
Smaller; single breast band; brown back, rump, and tail; large black bill.



Flight Pattern



Flies in wavering erratic manner on territory. Capable of direct swift flight.

Nest Identification

Shape Location

Unlined or lined with pebbles, grass, and twigs • on ground with good visibility • built by male • 3–5 buff eggs with black and brown blotches; oval to pyriform, typically quite pointed; 1.4 inches long.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 3.2 ounces
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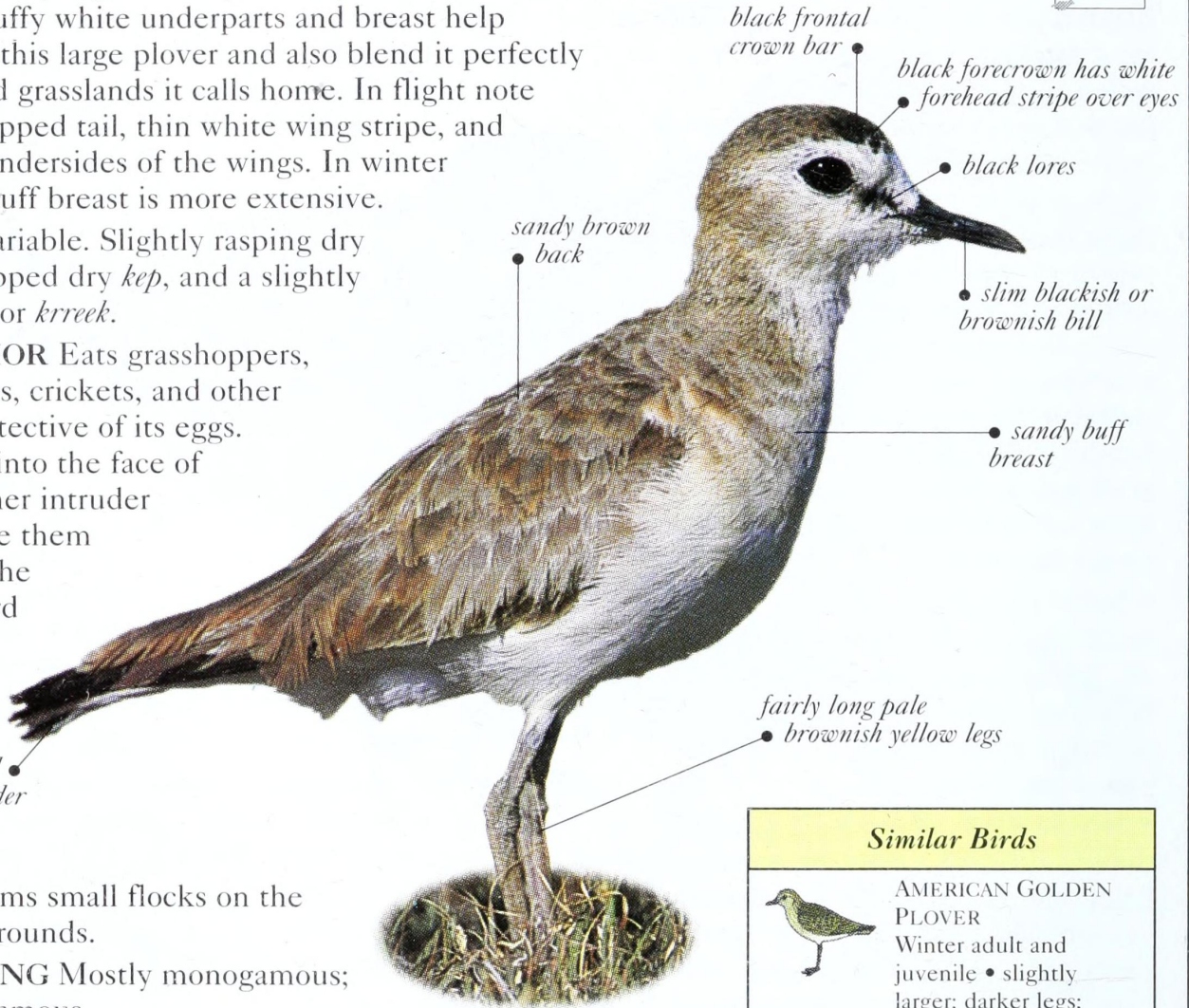
DATE _____ TIME _____ LOCATION _____

Family CHARADRIIDAE	Species <i>Charadrius montanus</i>	Length 9 inches	Wingspan 17.5–19.5 inches
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MOUNTAIN PLOVER

This fast-running pale brown plover is one of few shorebirds that lives in dry regions away from water. Its sand-colored back and buffy white underparts and breast help distinguish this large plover and also blend it perfectly into the arid grasslands it calls home. In flight note the black-tipped tail, thin white wing stripe, and the white undersides of the wings. In winter the sandy buff breast is more extensive.

- **SONG** Variable. Slightly rasping dry *krehr*, a clipped dry *kep*, and a slightly reedy *krrip* or *krreek*.
- **BEHAVIOR** Eats grasshoppers, beetles, flies, crickets, and other insects. Protective of its eggs. Will fly up into the face of cattle or other intruder or try to lure them away with the crippled-bird



display. Forms small flocks on the wintering grounds.

- **BREEDING** Mostly monogamous; some polygamous.
- **NESTING** Incubation 28–31 days by both sexes. After laying first set of eggs, which are incubated by male, female lays and incubates second set. First flight at 33–34 days. Precocial young feed themselves, tended by both sexes. 2 broods per year.
- **POPULATION** Uncommon to casual.
- **CONSERVATION** Has disappeared from much of former breeding range due to the land’s conversion to farmland and range

land for cattle that often overgraze it. Decline also linked to decline of prairie dog population, because plovers use the mounds around the entrances to old prairie dog burrows for nests.

Flight Pattern



Short flights on breeding grounds with few rapid wing flutters between short glides. Direct flight with rapid steady wing beats for longer distances or in migration.

Nest Identification

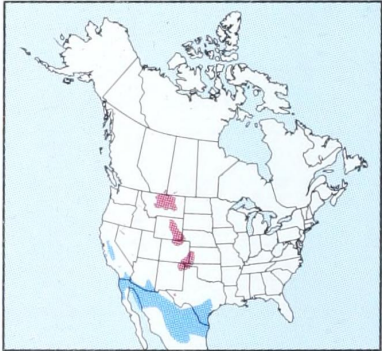
Shape  Location 

Scant lining of rootlets and dried grass, often added during incubation • flat open ground between hummocks, occasionally amid cacti or scattered shrubs • built by male • 2–4 olive-buff eggs, with many black marks and wreathed; blunt pyriform, 1.5 inches long.

Similar Birds



AMERICAN GOLDEN PLOVER
Winter adult and juvenile • slightly larger; darker legs; darker gray plumage conspicuously spotted and notched on upperparts; dull brownish gray underwings and auxiliaries; lacks black and white on tail.



Plumage Sexes similar	Habitat 	Migration Migratory	Weight 3.6 ounces
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DATE _____ TIME _____ LOCATION _____

Family HAEMATOPODIDAE	Species <i>Haematopus ostralegus</i>	Length 16–17 inches	Wingspan 30–34 inches
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EURASIAN OYSTERCATCHER

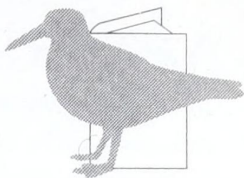
Though very widespread and migratory in the Old World, the Eurasian Oystercatcher has only been found once in North America.

Also known also as the European Oystercatcher, this large thickset bird is identified by its long straight bright red-orange bill; pink legs; contrasting coloration of a black head, breast, and upperparts and white underparts; and pinkish eyes. In flight it shows white uppertail coverts, rump, and lower back; and a long, broad white wing stripe extending into the primaries.

- **SONG** Calls include a loud high sharp *kee-pit, kee-pit* and a soft weep. When disturbed gives sharp repetitive kip or pick.
- **BEHAVIOR** Pairs or small groups. Wary; often first to give alarm on beaches. Generally found on the coast or along large rivers when not breeding. Often wades in water 3–4 inches deep searching for mussels; also eats crabs and marine worms. Turns over pebbles and stones to find food. During mating season has butterfly-like display flight with deep wing beats. A noisy piping display, in which birds run parallel with a downward-pointed bill, is heard all year. Adults will defend nest by flying straight at an intruder.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 24–27 days by both sexes. Precocial

young leave nest soon after hatching; tended by both sexes but feed themselves. First flight at 35–42 days. 1 brood per year.

- **POPULATION** Accidental in North America; 1 record in Newfoundland. Common in Eurasian range.



JUVENILE

Similar Birds



AMERICAN OYSTERCATCHER
Brown upperparts; yellow eyes; shorter wing bar; narrow white band on uppertail coverts.



Flight Pattern



Strong direct flight with shallow wing beats.

Nest Identification

Shape Location

Open depression lined with pebbles, shells, or vegetation • built by both sexes • on rocky or sandy spits, beaches, and islands • 2–4 yellowish or grayish buff eggs with dark spots and streaks; oval to long oval, 2.2 x 1.5 inches.

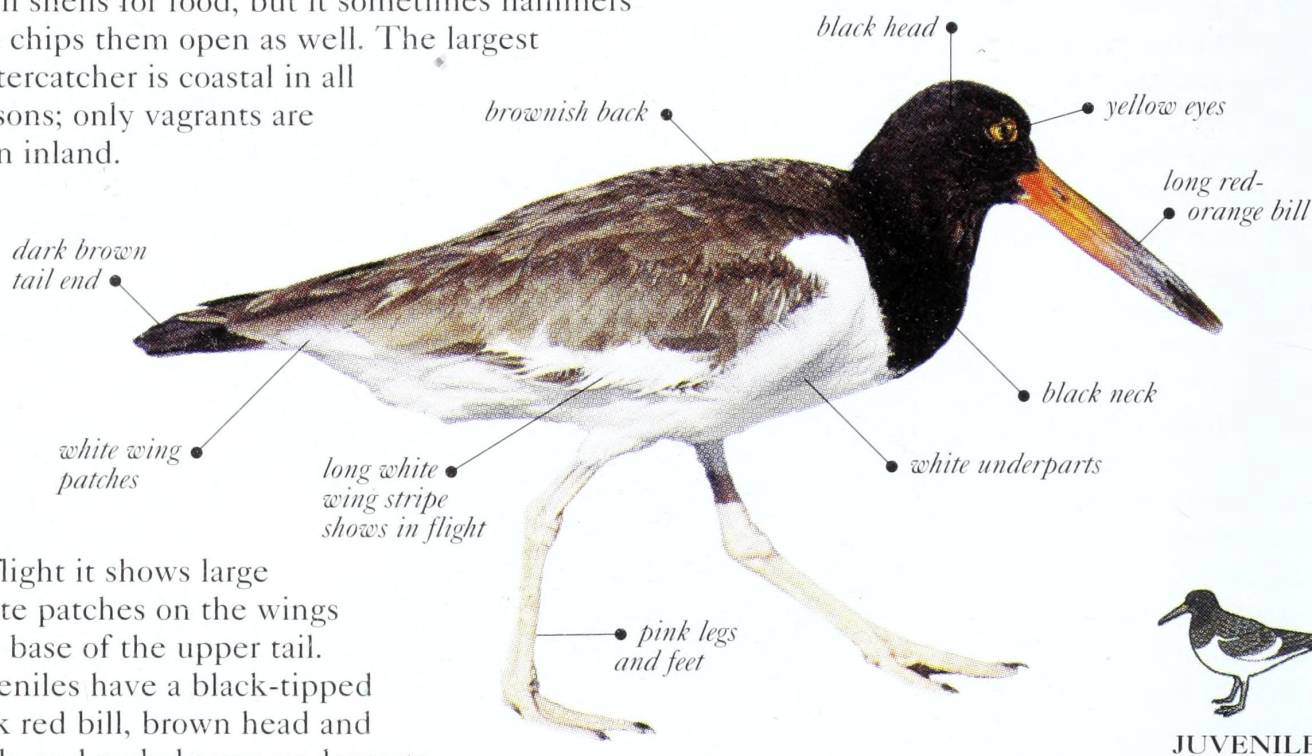
Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.2 pounds
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DATE _____ TIME _____ LOCATION _____

Family	HAEMATOPDIDAE	Species	<i>Haematopus palliatus</i>	Length	18–20 inches	Wingspan	30–36 inches
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AMERICAN OYSTERCATCHER

Like all oystercatchers, this bird uses its three- to four-inch, laterally compressed, sharp chisel-tipped bill to pry open shells for food, but it sometimes hammers and chips them open as well. The largest oystercatcher is coastal in all seasons; only vagrants are seen inland.



In flight it shows large white patches on the wings and base of the upper tail. Juveniles have a black-tipped dark red bill, brown head and neck, and scaly brown underparts.

- **SONG** *Kleep, wheep, or peep*. Makes loud *crik, crik, crik* when it takes flight.
- **BEHAVIOR** Wary; usually does not allow close approach. Eats oysters, clams, and other bivalves; also small sea urchins, marine worms, and starfish. Usually solitary or in pairs or family groups; never in large flocks. Often feeds with other birds.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 24–29 days by both sexes. Precocial young leave nest shortly after hatching. First flight at about 5 weeks. Tended by both sexes. 1 brood per year.
- **POPULATION** Uncommon or rare resident in most of coastal North America from southern California to Pacific Coast of Mexico and from Gulf Coast of Mexico to Maryland. In summer expanding breeding range in the Northeast to Cape Cod.

Similar Birds

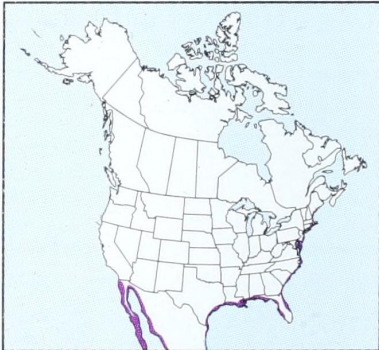


EURASIAN OYSTERCATCHER
Longer white wing patches; black upperparts; white back, rump, and tail; black tail band;
• juvenile has white patch on foreneck.

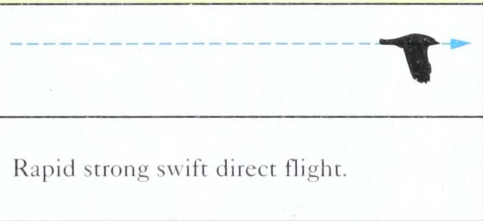


BLACK OYSTERCATCHER
Smaller; entirely dark body; no white on wings.

- **CONSERVATION** Declined in late 19th century principally because of overshooting; however, protection by law helped population recover and species currently is expanding back into some of its former range in the Northeast.



Flight Pattern



Rapid strong swift direct flight.

Nest Identification

Shape

Location

Rimmed with shells • usually unlined • small hills of sand on dry flat beaches
• above high-water line • built by both sexes • 1–4 buff-gray eggs often with dark brown speckles; ovoid, 2.2 inches long.

Plumage	Sexes similar	Habitat		Migration	Most do not migrate	Weight	1.4 pounds
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DATE _____ TIME _____ LOCATION _____

Family	RECURVIROSTRIDAE	Species	<i>Himantopus mexicanus</i>	Length	14–15.5 inches	Wingspan	25–27 inches
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BLACK-NECKED STILT

Extremely protective of its nest, this stilt will try to attack an intruder or will splash water with its breast as a distraction. This bird's reddish legs, which are eight to ten inches long, may be the longest, in proportion to its body size, among all birds. The female is duller and has more brown on its back. In flight the black upperparts and wings contrast strongly with the white underparts, rump, and tail, and the long legs trail far behind.



- **SONG** Loud *kek-kek-kek* or *yip-yip-yip*, sometimes with barking yelps.
- **BEHAVIOR** Actively feeds by walking, often rapidly, and picking up insects in shallow water along shores. Sometimes wades up to its belly. Prefers freshwater. Also eats small crustaceans, worms, small fish, and some seeds. Solitary, in pairs, or in small flocks.
- **BREEDING** Monogamous. Loosely colonial.
- **NESTING** Incubation 22–25 days by both sexes; done by female at night, by male during day. Precocial young leave nest after hatching and feed themselves, but are tended by both sexes. First flight at 4–5 weeks. 1 brood per year.

Similar Birds

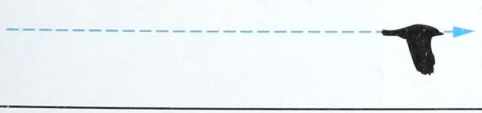


AMERICAN AVOCET
Black-and-white pattern on back and wings; white underparts and upper back; long, slender upturned bill • rusty cinnamon head and neck in breeding plumage • grayish buff head and neck in winter.



BLACK-WINGED STILT
Face entirely white; base of hind neck and shoulders white • male has black crown and hind neck in breeding plumage • female head and neck entirely white • male like female in winter • juveniles have brown upperparts • accidental on Aleutian Islands.

Flight Pattern

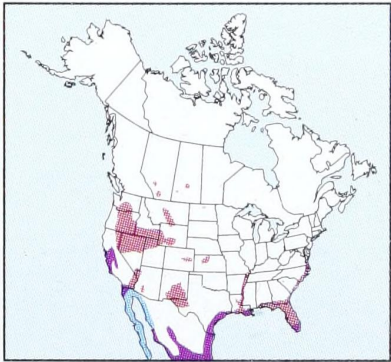


Strong swift direct flight with somewhat shallow wing beats.

Nest Identification

Shape  Location 

Lined with stems, weeds, sticks, grasses, fragments of shells, small rocks, fish bones, and rubbish • on ground • sometimes hidden by grasses • built by both sexes • 3–5 yellow or buff eggs heavily blotched with black or brown; pyriform, 1.7 inches long.



Plumage	Sexes similar	Habitat	  	Migration	Most migrate	Weight	5.9 ounces
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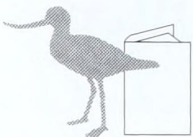
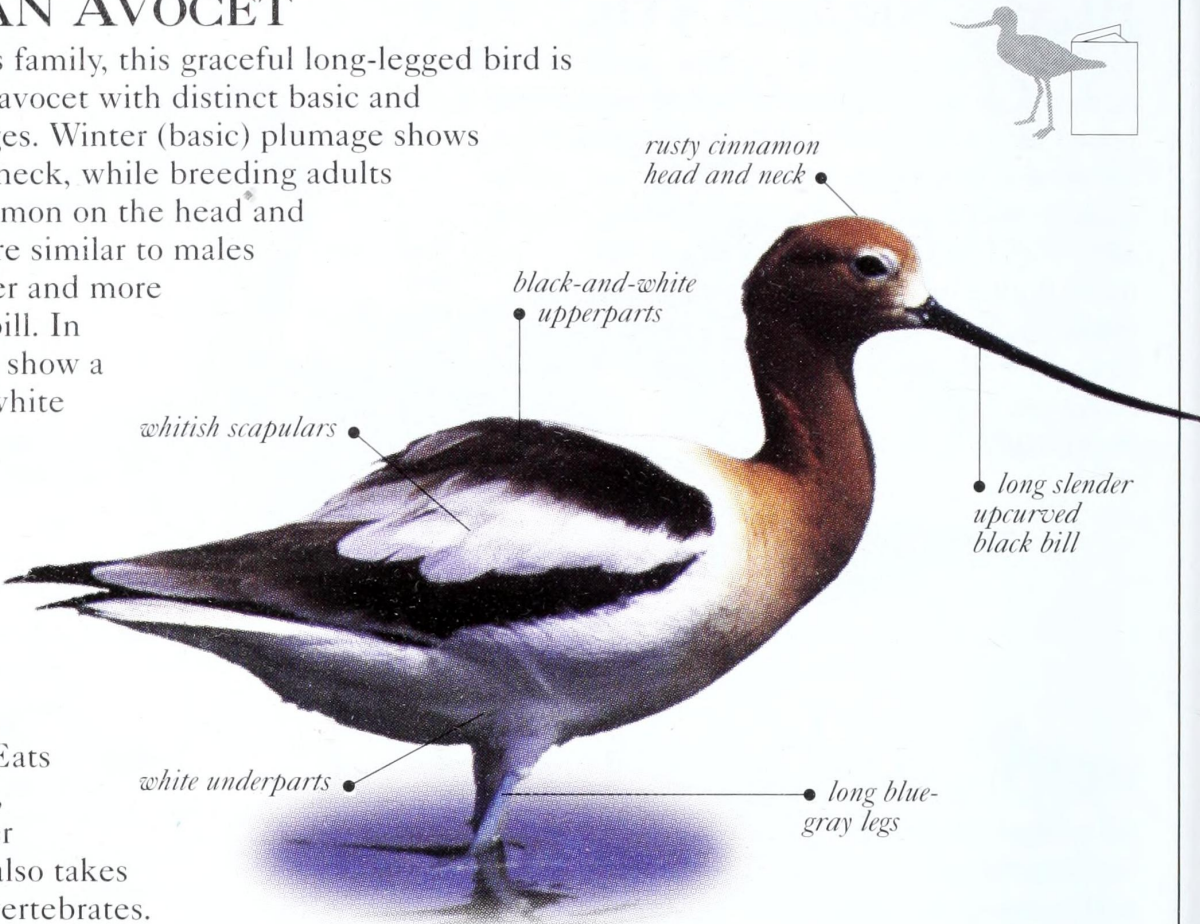
DATE _____ TIME _____ LOCATION _____

Family	RECURVIROSTIDAE	Species	<i>Recurvirostra americana</i>	Length	18–20 inches	Wingspan	27–38 inches
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AMERICAN AVOCET

The tallest in its family, this graceful long-legged bird is the world's only avocet with distinct basic and alternate plumages. Winter (basic) plumage shows a gray head and neck, while breeding adults show rusty cinnamon on the head and neck. Females are similar to males but have a shorter and more upward-curved bill. In flight both sexes show a bold black-and-white pattern on the upperparts and black wing tips, primary coverts, and scapular bars.

- **SONG** Loud wheet or pleet.
- **BEHAVIOR** Eats primarily insects, shrimp, and other crustaceans but also takes other aquatic invertebrates. Prefers to feed in flocks, sometimes with more than 100 birds walking shoulder to shoulder. Sometimes feeds in water up to its belly with bill in water. In shallow water brings food to surface by sweeping its open bill back and forth in the water. In deep water may feed like a dabbling duck by tipping over.
- **BREEDING** Monogamous. Loosely colonial. Pairs perform elaborate courtship display and group rituals.
- **NESTING** Incubation 22–29 days by both sexes. Precocial young leave nest soon after hatching. Tended by both sexes but feed themselves. First flight at 28–35 days. 1 brood per year.
- **POPULATION** The American Avocet is fairly common; stable and possibly increasing west of the Great Plains; uncommon and local in the East, where it is an uncommon transient in summer and a coastal species in winter.

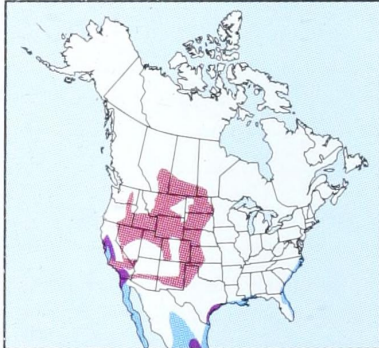


WINTER PLUMAGE

Similar Birds



BLACK-NECKED STILT
Slightly upcurved black bill; black upperparts; white underparts; long reddish legs and feet.



Flight Pattern

Strong direct flight with neck extended slightly forward and long legs trailing behind tail.

Nest Identification

Shape Location

Lined with dry grasses and mud chips • on flat ground or marsh near water • built by both sexes • 3–4 olive-buff eggs blotched with brown and black; pyriform to long pyriform, 2 inches long.

Plumage	Sexes similar	Habitat		Migration	Migratory	Weight	11.1 ounces
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DATE _____ TIME _____ LOCATION _____

Family JACANIDAE	Species <i>Jacana spinosa</i>	Length 9 inches	Wingspan 17–18 inches
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NORTHERN JACANA

An extremely territorial and aggressive bird, this jacana prefers freshwater ponds and marshes with heavy vegetation, a habitat for which it is well suited as it has extremely long toes with long nails to support it on the soft mud and delicate aquatic vegetation. During courtship display both sexes lift their wings and flaunt the green-yellow wing patches beneath them, revealing an unusual long yellowish spur at the bend of the wing. The female jacana is similar to the male, but larger. In flight the yellow flight feathers contrast with the dark brownish body, and the long legs trail or dangle behind. Juveniles have brown upperparts and white underparts with a black postocular stripe extending along the side of the neck.

- **SONG** Noisy with loud shrills and a clicking chatter that resembles an old-fashioned telegraph or typewriter.
- **BEHAVIOR** Often walks over floating aquatic vegetation. Swims well. Dives to avoid enemies. Eats insects and seeds picked from vegetation in marsh or pond, or off wet ground. Often raises wings over back to reveal yellow flight feathers; also momentarily raises wings upon landing.
- **BREEDING** Polyandrous. Female may lay eggs fertilized by 1–4 mates; each male will incubate eggs alone and tend chicks.
- **NESTING** Incubation 22–24 days by male, which defends offspring from intruders. Precocial young leave nest 1–2 days after hatching; find own food but tended by male. First flight at 35 days. Multiple broods per year.

- **POPULATION** Very common in proper habitat in Mexico and Central America. Rare to casual and irregular visitor to southern Arizona and southern and central Texas.

- **CONSERVATION** Some declines in breeding ranges due to habitat loss.

Flight Pattern

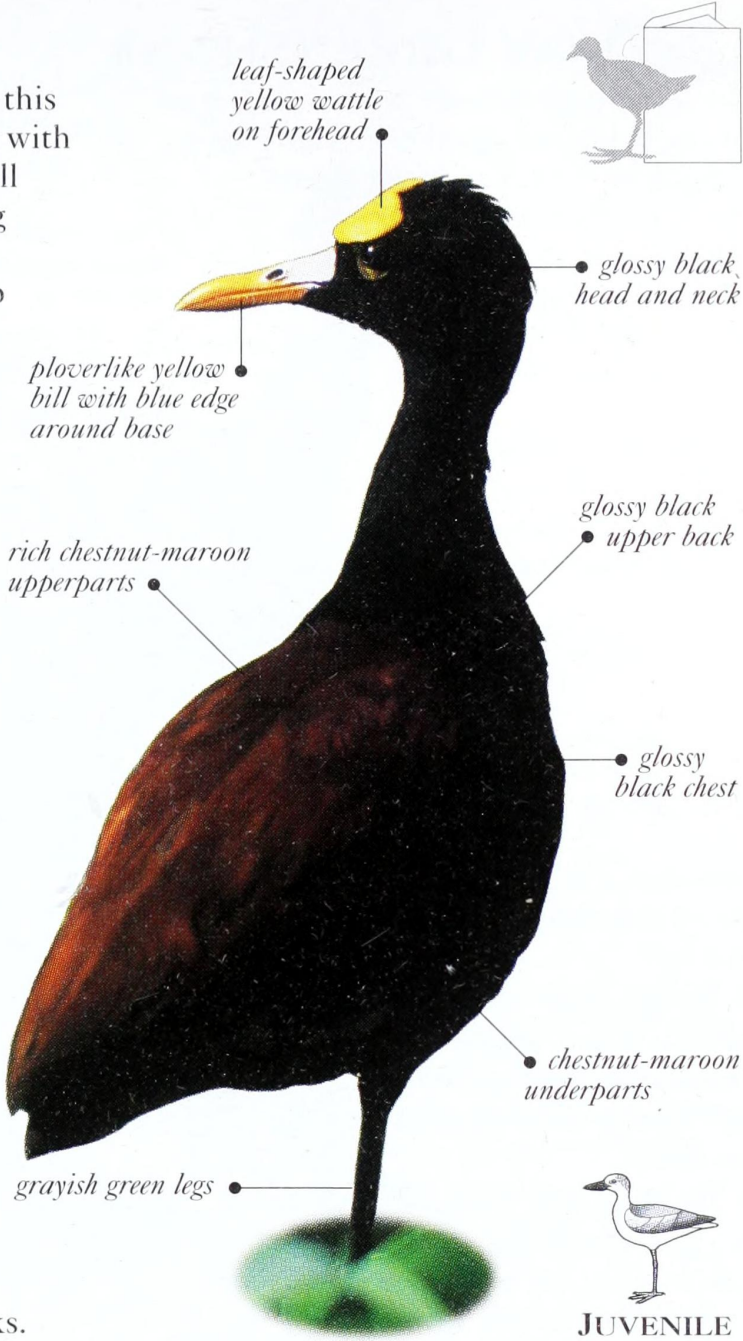


Weak fluttering mothlike flight, often low over vegetation.

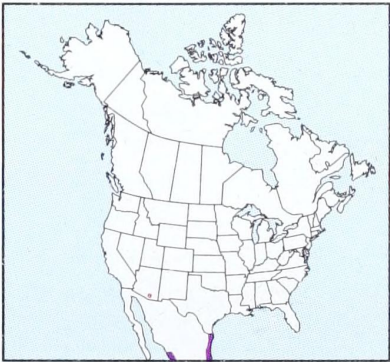
Nest Identification

Shape  Location 

Cattail leaves and other green leaves and grasses • on small floating pile of vegetation or leaves • built by male • 3–5 brown eggs with black lines; almost round, 1.2 inches long.



Similar Birds
None in North America.



Plumage Sexes similar	Habitat   	Migration Nonmigratory	Weight 2.8 ounces
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DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE	Species <i>Tringa nebularia</i>	Length 13 inches	Wingspan 23–26 inches
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COMMON GREENSHANK

This shy pigeon-sized bird is the largest of the Palearctic shanks. Vagrants have wandered to St. Lawrence Island, the Pribilof and Aleutian Islands, and to northeastern Canada. It is most often seen feeding alone. In flight note the uniformly gray upperwings, white extending up the back, white rump, barred white tail,

and greenish legs and feet extending beyond the tail.

- **SONG** Bold melodic whistle of *tew-tew-tew* similar to that of Greater Yellowlegs. When breeding makes musical *too-hoo, too-hoo*.
- **BEHAVIOR** Wary. Distinctive large wader with nervous character and strident calls. Feeds by running into shallow water or sometimes by wading belly-deep. Eats small fish, insects, and larvae.
- **BREEDING** Monogamous. Small colonies. Male displays with high switchback flight.
- **NESTING** Incubation 24 days by both sexes. Precocial young leave nest soon after hatching; feed themselves but tended by one or both sexes, although 1 parent usually leaves shortly after hatching. First flight at 25–31 days. 1 brood per year.

Flight Pattern

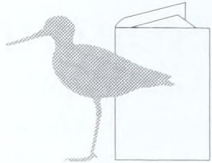


Swift direct flight with clipped wing beats.

Nest Identification

Shape  Location 

Lined with moss • on ground close to fallen log, stump, or hummock • 4 pearl-gray to buff eggs with reddish brown spots; pyriform, 2 inches long.



Similar Birds



GREATER YELLOWLEGS
Darker with more gray-brown plumage; more heavily barred white tail; dark back; brighter yellow legs.



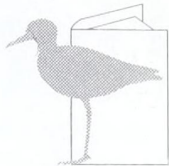
Plumage Sexes similar	Habitat 	Migration Migratory	Weight 6.1 ounces
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DATE _____ TIME _____ LOCATION _____

Family	SCOLOPACIDAE	Species	<i>Tringa melanoleuca</i>	Length	14 inches	Wingspan	23–26 inches
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GREATER YELLOWLEGS

The largest of the North American *Tringa*, this common sandpiper is almost a third larger than the very similar Lesser Yellowlegs. It is closely related to the Old World “shanks,” but differs from them by having a squarish white rump patch and a dark back. Its large size and long bright yellow legs distinguish this gray shorebird from most others. Paler winter plumage shows fainter streaking, spotting, and barring on the



neck, breast, sides, and flanks. In flight the dark wings and mantle contrast with the white rump and tail.

- **SONG** Loud repeated descending *teu-teu-teu* in series of 3 or more. Also territorial song of *too-whoee*.
- **BEHAVIOR** Occurs either alone or in small flocks. Wary; known for its loud whistled alarm call that warns other shorebirds of approaching danger. Feeds by pecking or skimming water with its bill, not by probing. Sometimes dashes in pursuit of small fish. Also eats insects and their larvae, crabs, and snails.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 23 days by both sexes. Precocial young

leave nest soon after hatching and find own food but tended by both sexes. First flight at 18–20 days. 1 brood per year.

- **POPULATION** Fairly common even in migration. May be increasing.

Similar Birds



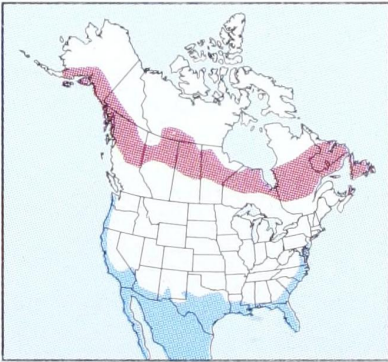
LESSER YELLOWLEGS
Smaller; shorter thinner straight black bill; calls *teu* or *teu-teu*.



WILLET
Larger and stockier; straight dark bill; lacks white spotting on upperparts; grayish legs; striking black-and-white wing pattern in flight.



COMMON GREENSHANK
Slightly smaller; more distinctly upturned bill; less heavily streaked, barred, and spotted; greenish legs and feet; in flight rump and lower back show as large white wedge.



Flight Pattern

Swift direct flight, sometimes at great heights, with long legs extended beyond tail.

Nest Identification

Shape Location

In moss on small hummock usually near water • lined with grass and leaves • 3–4 buff eggs blotched with gray and dark brown; ovate pyriform, 1.9 inches long.

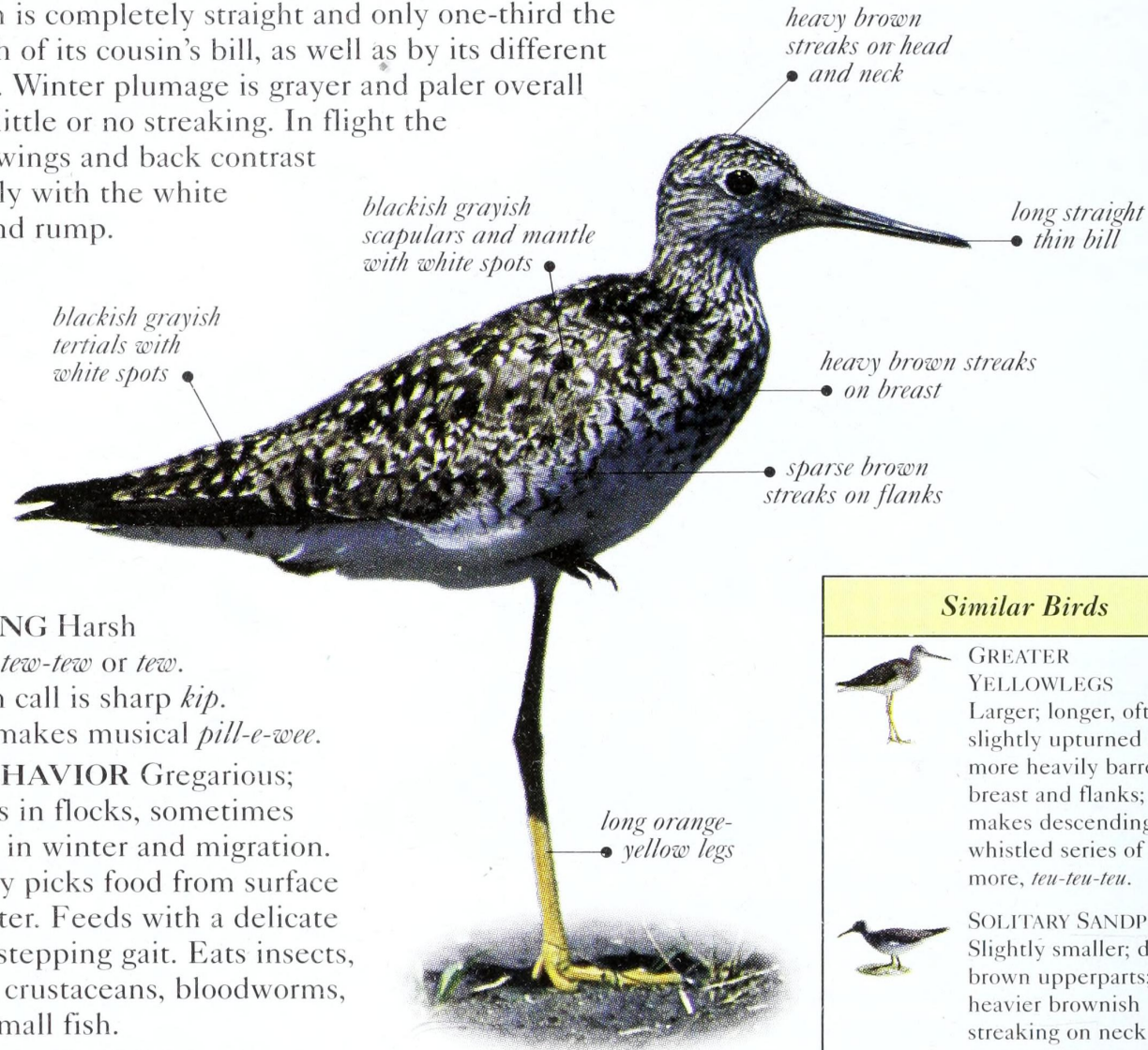
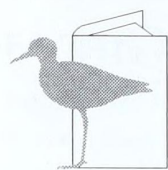
Plumage	Sexes similar	Habitat		Migration	Migratory	Weight	6.0 ounces
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DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE	Species <i>Tringa flavipes</i>	Length 10.5 inches	Wingspan 19–22 inches
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LESSER YELLOWLEGS

Often seen walking gracefully on mudflats or shores, this sandpiper is tame and approachable. It is best distinguished from the Greater Yellowlegs by its smaller size and its bill, which is completely straight and only one-third the length of its cousin's bill, as well as by its different voice. Winter plumage is grayer and paler overall with little or no streaking. In flight the dark wings and back contrast sharply with the white tail and rump.



- **SONG** Harsh short *tew-tew* or *tew*. Alarm call is sharp *kip*. Also makes musical *pill-e-wee*.
- **BEHAVIOR** Gregarious; occurs in flocks, sometimes large, in winter and migration. Slowly picks food from surface of water. Feeds with a delicate high-stepping gait. Eats insects, small crustaceans, bloodworms, and small fish.
- **BREEDING** Monogamous. Loosely colonial. Noisy on nesting grounds.
- **NESTING** Incubation 22–23 days by both sexes. Precocial young leave nest soon after hatching and feed themselves, but are tended by both sexes for 18–20 days. 1 brood per year.

Similar Birds



GREATER YELLOWLEGS
Larger; longer, often slightly upturned bill; more heavily barred breast and flanks; makes descending whistled series of 3 or more, *teu-teu-teu*.



SOLITARY SANDPIPER
Slightly smaller; darker brown upperparts; heavier brownish streaking on neck and breast; white eye ring; dull greenish yellow legs; dark rump; in flight shows barred dark tail edged with white.

Flight Pattern



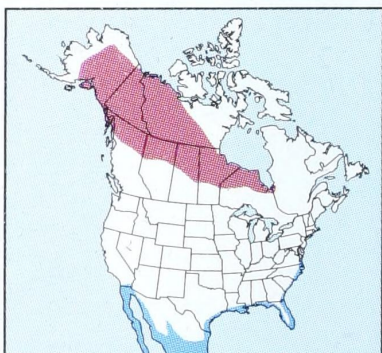
Swift direct flight with rapid wing beats.

Nest Identification

Shape 

Location 

• **POPULATION** Common on breeding grounds. In migration, common in the East and the Midwest; uncommon in the far West. Fairly common in winter in Baja and on the Gulf Coast. Stable or slightly increasing.



In grass marshes and bogs surrounded by black spruce trees • on raised pile of leaves or vegetation near water • lined with small amount of grass and leaves • built by female • 3–4 buff to yellow or gray eggs with brown blotches; ovate pyriform, 1.7 x 1.2 inches.

Plumage Sexes similar	Habitat 	Migration Migratory	Weight 2.9 ounces
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DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE

Species *Tringa totanus*

Length 11 inches

Wingspan 22 inches

COMMON REDSHANK

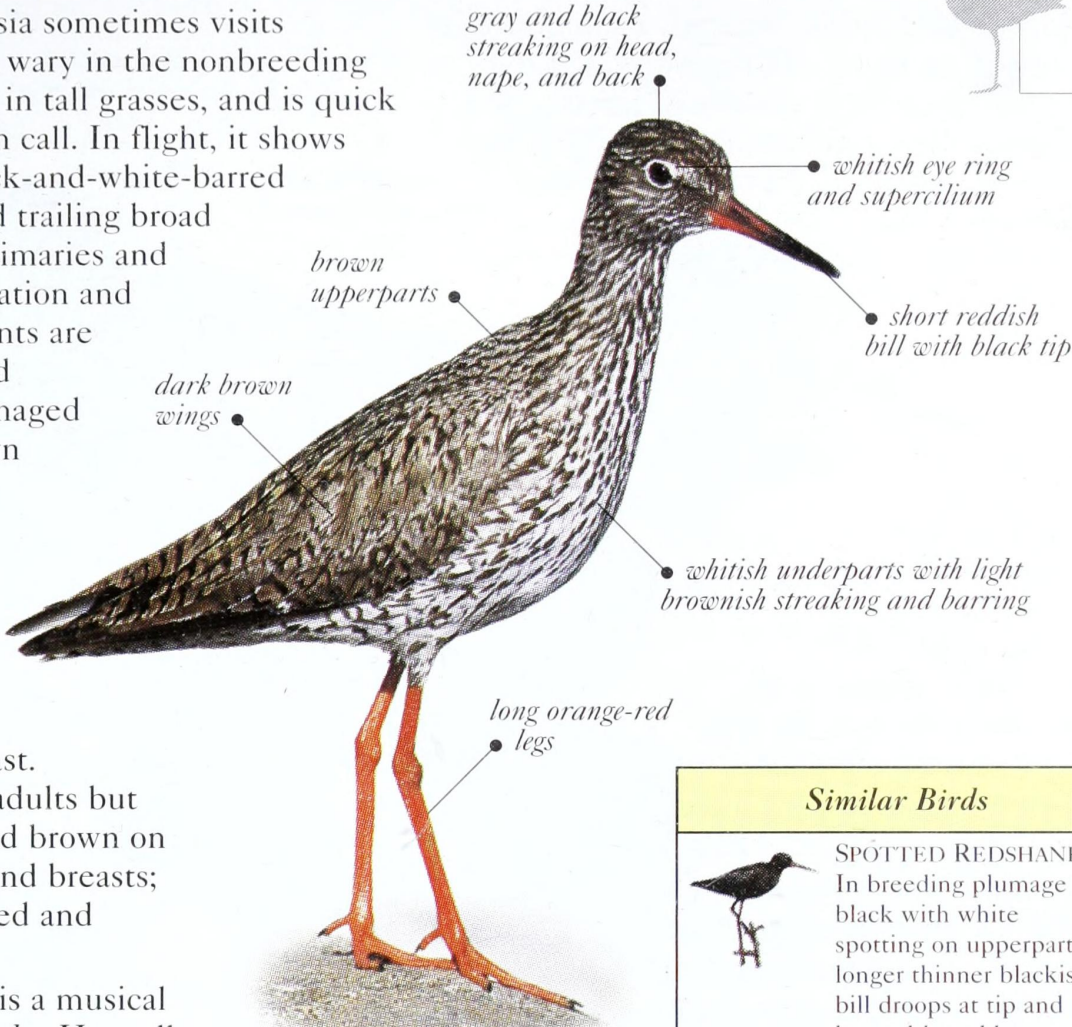
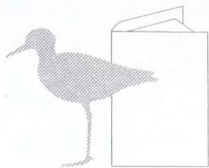
This native of Eurasia sometimes visits Newfoundland. It is wary in the nonbreeding season, often hiding in tall grasses, and is quick to utter a noisy alarm call. In flight, it shows a distinguishing black-and-white-barred tail, white rump, and trailing broad white edges to its primaries and secondaries. In migration and winter, its usual haunts are shores, mudflats, and estuaries. Basic-plumaged birds have fine brown streaking on their underparts limited

to the neck and breast. Juveniles resemble adults but have heavily streaked brown on their heads, necks, and breasts; upperparts are spotted and flecked buffy white.

- **SONG** Usual call is a musical down-slurred *tieu-hu-hu*. Has calls of a high-pitched repeated yelping *twek-twek* and an alarm call of *ti-you*.
- **BEHAVIOR** Solitary or in small flocks. Nervous. Bobs head. Noisy. Sometimes feeds with other shorebirds. Walks on shore and wades in shallow water to pick up food. Eats small fish, mollusks, small crustaceans, and insects. Perches on low objects. Frequents mudflats, marshes, and grassy fields in summer.
- **BREEDING** Monogamous. Small colonies. Male displays with song flight in an undulating pattern with vibrating wings.
- **NESTING** Incubation 23–24 days by both sexes. Young

precocial; leave nest soon after hatching; initially tended by both sexes, later by male. First flight at 25–35 days. Has 1 brood per year.

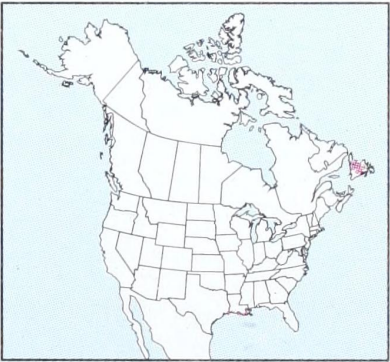
- **POPULATION** Accidental in North America; recorded from Newfoundland.



Similar Birds



SPOTTED REDSHANK
In breeding plumage is black with white spotting on upperparts; longer thinner blackish bill droops at tip and has red-based lower mandible; grayish mottling on secondaries; white rump and white wing linings show in flight; longer dark red legs • basic plumage has paler gray-brown upperparts; white underparts with fine streaking and barring on face, neck, sides, and breast; dusky eye line.



Flight Pattern



Swift direct flight with quick clipped wing beats.

Nest Identification

Shape  Location 

Lined with fine plant material • on ground in shallow hollow of grassy tussock and hidden in vegetation • built by female • 4 buff eggs, marked with varying spots and blotches of black, brown, or purplish gray; pyriform, 1.78 x 1.24 inches.

Plumage Sexes similar

Habitat 

Migration Migratory

Weight 4.6 ounces

DATE _____ TIME _____ LOCATION _____

Family SCOLOPADAEE	Species <i>Tringa erythropus</i>	Length 12.5 inches	Wingspan 23–25 inches
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SPOTTED REDSHANK

This shy bird differs from other shorebirds in its black coloring, scarlet-red legs, and red mandible base. It is a native of Eurasia, but stragglers occasionally have made their way to the Aleutians and Pribilofs. In winter plumage changes from black to mostly white on the underparts and gray on the upperparts, and the base on its lower mandible becomes dull orange-red. Molting birds are blotched black and white beneath. In flight the white wing linings, rump, and lower back contrast with the dark body, and the toes project toward the tail tip.

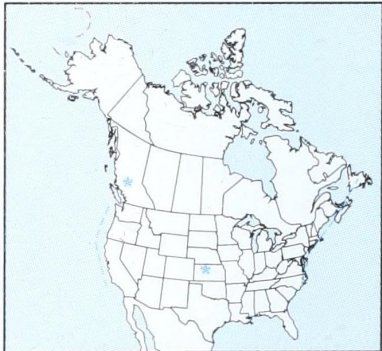
- **SONG** Sharp up-and-down *chy-weet* and drawn-out *tchwee*. Alarm call is *chip-chip*.
- **BEHAVIOR** Feeds and forages by sweeping bill back and forth and probing in mud. Also wades in water up to its belly. Eats adult and larval insects, mollusks, small fish, and crayfish. Outside breeding season favors sheltered freshwater and brackish habitats but will also frequent quiet muddy coastlines.
- **BREEDING** Monogamous.
- **NESTING** Incubation 23–24 days by both sexes. Female often leaves nest before eggs hatch. Precocial young leave nest soon after hatching. Tended by male. First flight at 25–31 days. 1 brood per year.



WINTER PLUMAGE

Similar Birds

-  **COMMON REDSHANK**
Slightly smaller; shorter neck; red bill with black tip; brown upperparts; white underparts with streaking on head, neck, and upper breast; broad white trailing edge to wing in flight • casual to Newfoundland.
-  **COMMON GREENSHANK**
Larger; long, slightly upturned dark bill; green legs; streaked blackish brown upperparts; white underparts.



Flight Pattern	
	
Swift direct flight when flushed.	
Nest Identification	
Shape 	Location 

• **POPULATION** Rare visitor to Aleutian and Pribilof Islands during migration. Casual on Atlantic and Pacific Coasts in winter and during migration. Accidental elsewhere. Ranges from uncommon to common in native Eurasia.

Lined with willow or dwarf birch leaves • built on mound • 4 greenish eggs with large dark blackish brown splotches; pyriform, 1.9 inches long.

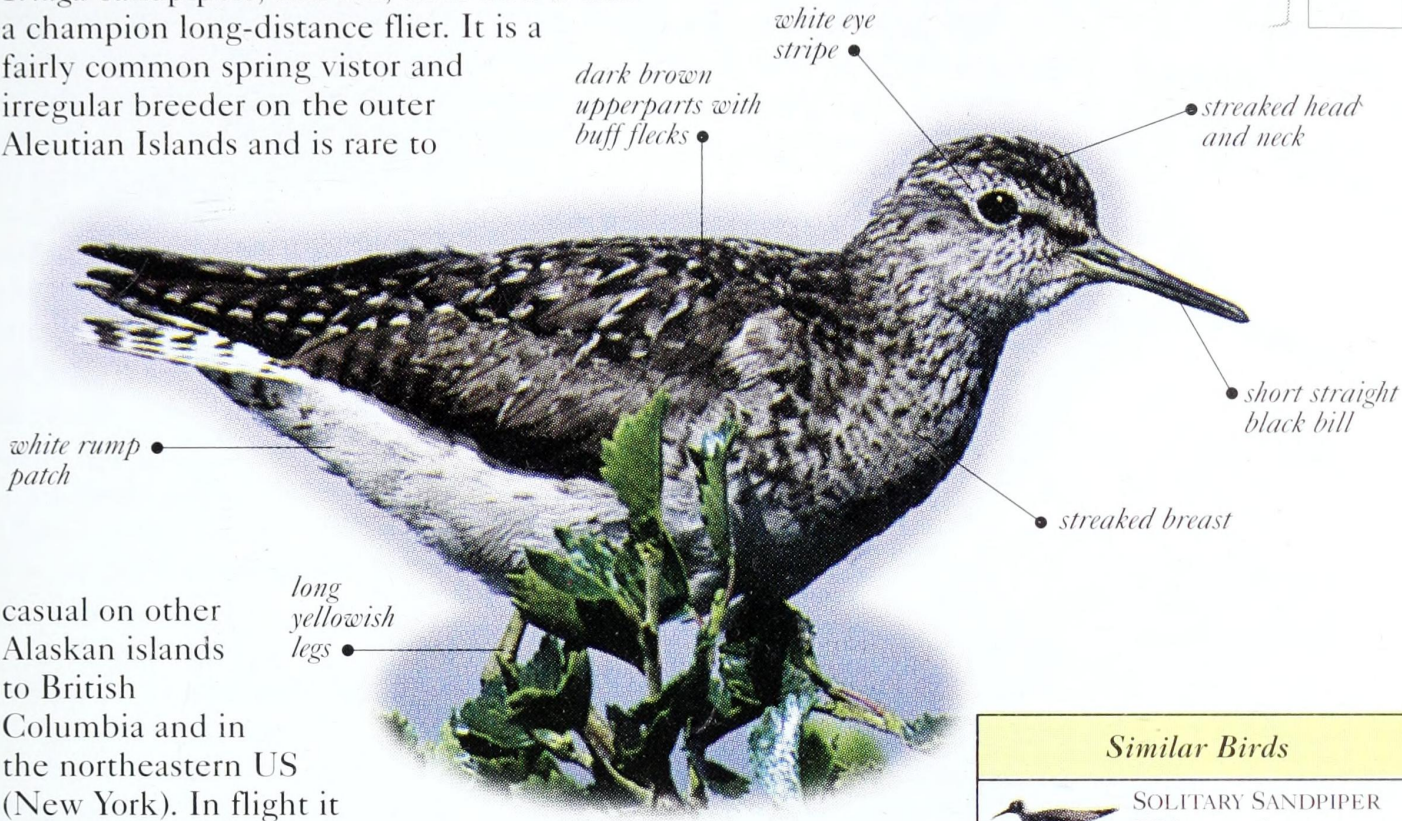
Plumage Sexes similar	Habitat 	Migration Migratory	Weight 5.6 ounces
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DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE	Species <i>Tringa glareola</i>	Length 8 inches	Wingspan 16 inches
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WOOD SANDPIPER

One of the most numerous and widespread *Tringa* sandpipers, this tall, lithe bird is also a champion long-distance flier. It is a fairly common spring visitor and irregular breeder on the outer Aleutian Islands and is rare to



casual on other Alaskan islands to British Columbia and in the northeastern US (New York). In flight it shows pale wing linings, a small white rump patch, and long yellowish legs extended beyond a heavily barred tail.

- **SONG** Loud piercing 3-note whistle *chiff-iff-iff*. Song is descending trill given on breeding grounds.
- **BEHAVIOR** Feeds in scattered groups, picking food from surface. Eats primarily insects but takes other invertebrates, including worms and small crustaceans. A rather shy and nervous wader. Bobs head and flicks tail. May perch on dead branches. When flushed it typically zigzags high and gives clear loud calls.
- **BREEDING** Monogamous. Loosely colonial.
- **NESTING** Incubation 22–23 days by both sexes. Precocial young leave nest soon after hatching. Tended mostly by male.

First flight at about 28 days.
1 brood per year.

- **POPULATION** Rare to casual in North America outside outer Aleutians. Common on Eurasian nesting grounds and in migration.

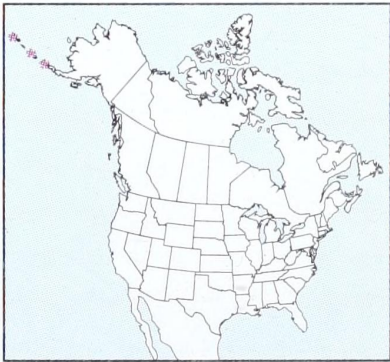
Similar Birds



SOLITARY SANDPIPER
White spotting on upperparts; white eye ring; barred and spotted underwing linings; darker underwing; black central tail feathers; heavily barred tail; lacks white rump patch.



GREEN SANDPIPER
Darker; fainter-patterned upperparts; shorter supercilium; darker underwings; larger white rump patch; less heavily barred tail; darker legs • accidental outside western Alaska.



Flight Pattern

Fast twisting direct flight with clipped wing beats.

Nest Identification

Shape Location

Abandoned nests • in small patch of moss • under dwarf birch or willow in hummock on dry ground, on open ground near water in northern forested region, and on tundra • lined with grass • built by female • 3–4 light green to creamy white eggs marked with reddish brown, 1.5 inches long.

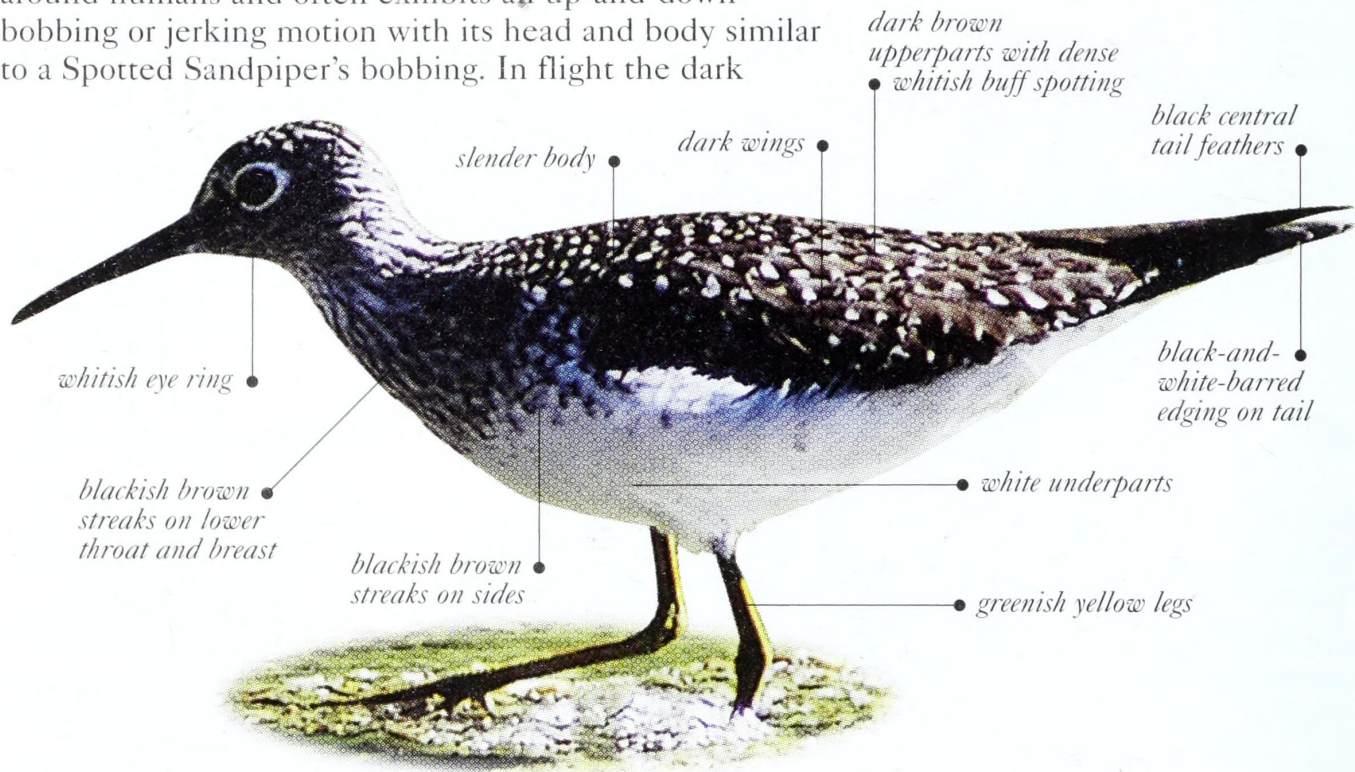
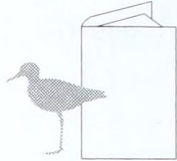
Plumage Sexes similar	Habitat	Migration Migratory	Weight 5.6 ounces
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DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE	Species <i>Tringa solitaria</i>	Length 8–9 inches	Wingspan 15–17 inches
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SOLITARY SANDPIPER

As its name suggests, this sandpiper is often seen alone or in small loose groups in its habitat of freshwater lakes, ponds, marshes, and rivers. This shorebird is not wary around humans and often exhibits an up-and-down bobbing or jerking motion with its head and body similar to a Spotted Sandpiper's bobbing. In flight the dark



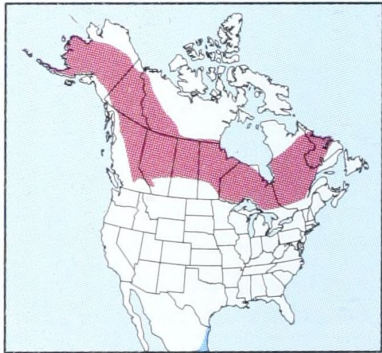
rump patch contrasts with the white outer tail feathers, which have black bars. Also note the dark wings without a wing stripe, dark underwings.

- **SONG** High shrill *pit-peat-weet* or *peat*.
- **BEHAVIOR** Searches for food by stirring up water, especially in stagnant pools, with bill and feet. Picks food from surface or probes with bill. Eats insects and insect larvae, small fish, small crustaceans, and other invertebrates. Somewhat aggressive toward other birds when feeding. Migrates singly or in small groups. Upon landing holds wings above back before folding.
- **BREEDING** Monogamous.
- **NESTING** Incubation 23–24 days by female. Precocial young leave nest soon after hatching and are tended by female. First flight at 17–20 days. 1 brood per year.

Similar Birds



SPOTTED SANDPIPER
Smaller; less upright stance; teeters body; yellowish or creamy pink legs; pink bill with dark tip; white supercilium; white wing stripe; shallow stiff wing beats • spotted underparts in summer.



Flight Pattern



Often zigzags on takeoff; light buoyant swallowlike direct flight.

Nest Identification

Shape	Location
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Female strengthens abandoned nest with other material • most often in conifers, 4–40 feet above ground • 4–5 olive eggs marked with brown, usually in wreath shape; pyriform to oval, 1.5 x 1.1 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.7 ounces
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DATE _____ TIME _____ LOCATION _____

Family	SCOLOPACIDAE	Species	<i>Catoptrophorus semipalmatus</i>	Length	13–16 inches	Wingspan	24–31 inches
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WILLET

This large gray sandpiper is named for its song of *pill-will-willet* given loudly and frequently on the breeding grounds. A rather nondescript shorebird, the Willet may initially thwart your efforts at identification as it sleeps standing on one leg with its head tucked in on its back or probes in mud with its long gray-black bill. But the moment it takes flight it is readily identified by the mostly white tail, white rump, bold black-and-white wing pattern, and loud call of its name. In winter the light upperparts lack the variegated/barred pattern.

• **SONG** Alarm or scolding call of *kip* or *wiek*. In flight makes *wee-wee-wee*.

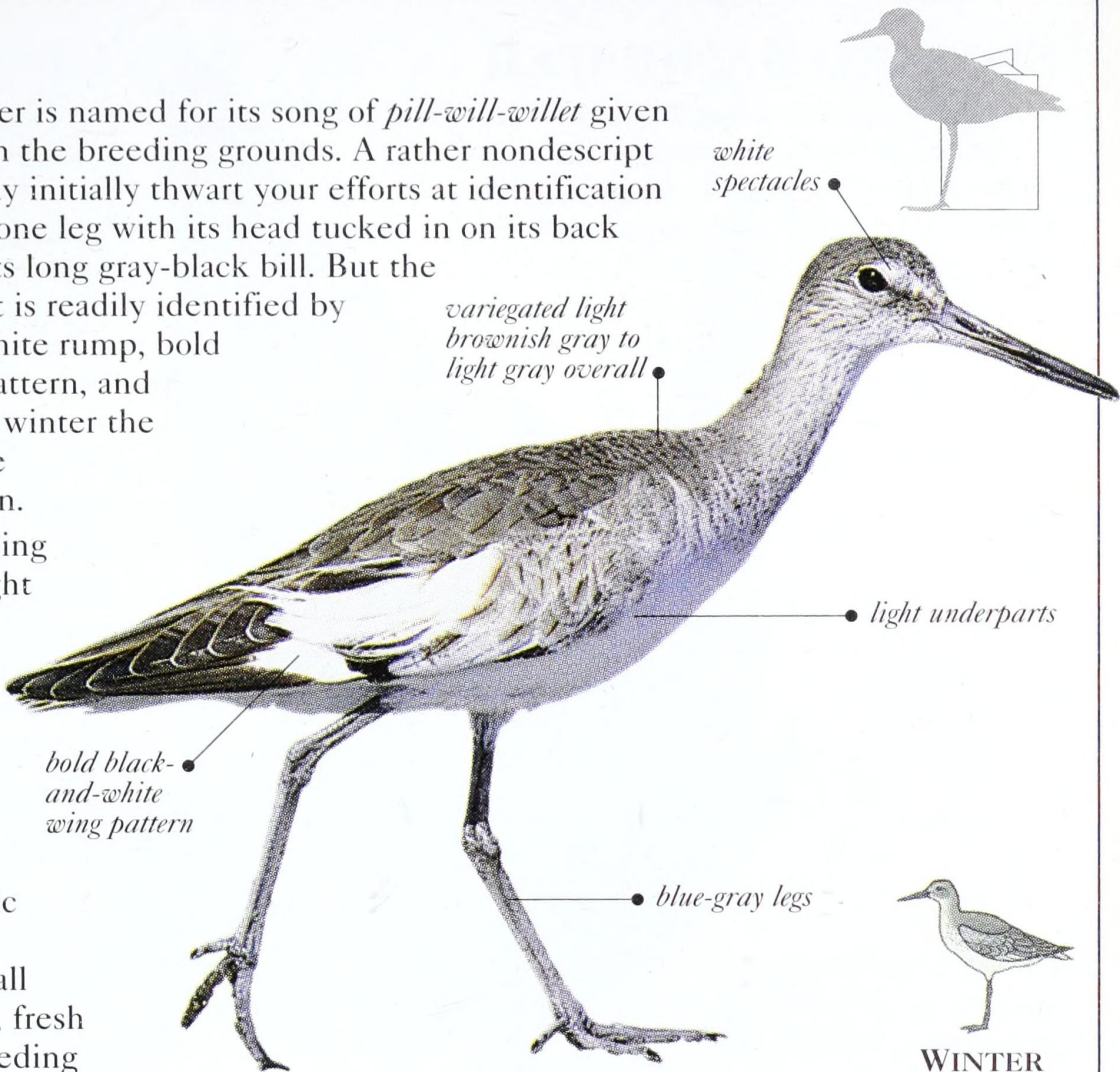
Well-known call of *pill-will-will*, *pill-o-will-o-willet*, or *pill-will-willet*.

• **BEHAVIOR**

Generalist. Wades, probing for food with bill. In water eats aquatic insects, marine worms, crabs, mollusks, and small fish. On land eats seeds, fresh shoots, and rice. On breeding grounds often perches high on rocks, posts, shrubs, or other tall objects, from which it may scold intruders in its territory. Becomes noisy when alarmed. Mobs will attack interlopers, especially at nesting time.

• **BREEDING** Monogamous. Semicolonial. Nests are 200 or more feet apart.

• **NESTING** Incubation 22–29 days by both sexes (male at night; female at other times). Precocial young leave nest soon after hatching but tended by both sexes. Parents sometimes abandon unhatched eggs after first young leaves nest even though they have well-developed embryos. First flight at about 28 days. 1 brood per year.

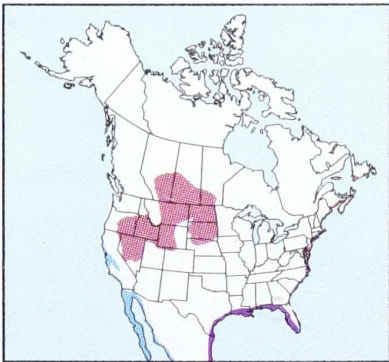


WINTER PLUMAGE

Similar Birds



GREATER YELLOWLEGS
Slimmer; grayer; thinner, more needlelike, often slightly upturned bill; yellow legs; in flight has white rump and tail with distal tail bands; no wing pattern.



- **POPULATION** Common. Has recovered from hunting in late 19th century and expanded into new or parts of ranges where it had been extirpated.
- **CONSERVATION** Habitat disturbance is beginning to negatively affect population.

Flight Pattern

Short low flight; series of rapid wing beats alternates with glides. Over long distances direct flight with steady rapid wing beats.

Nest Identification

Shape Location

Lined with dry grass • on sand away from shrubbery, tucked in cups of vegetation or tall grasses • 4–5 grayish to olive-buff eggs blotched with brown; 2.1 inches long.

Plumage	Sexes similar	Habitat		Migration	Migratory	Weight	7.6 ounces
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DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE	Species <i>Actitis macularia</i>	Length 7.5 inches	Wingspan 13–14 inches
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SPOTTED SANDPIPER

The most widespread and best-known sandpiper in North America is distinguishable on the ground by the way it constantly teeters its body as it stands with tail up and head down. Females are larger than their male counterparts and have more spotting. In flight it shows a short white wing stripe and the inner wing has a narrow white

white superciliary stripe

short, straight bill with pinkish to orange base and black tip

olive-brown upperparts

dull yellow legs

large dark brown-black breast spots

trailing edge. In winter Spotted Sandpipers can be found as close as the southern United States to as far away as southern South America.

- **SONG** High shrieking *peet-weet*. Chirps repeated *weet* in flight.
- **BEHAVIOR** In summer found almost anywhere near water. Feeds primarily on invertebrates, especially insects and their larvae; sometimes takes small fish. When flushed its curious, jerky flight and *weet-weet* notes are distinctive.
- **BREEDING** Monogamous but often sequentially polyandrous. Usually solitary nester; sometimes loosely colonial.
- **NESTING** Incubation 20–24 days mostly by male. Female sometimes helps with final clutch of season. Young leave nest

soon after hatching. Young feed themselves but tended solely by male. First flight at 13–21 days. 1–2 broods per year.

- **POPULATION** Widespread and common but some decline throughout range.

Flight Pattern



Direct flight low over water, wings flapping in shallow arcs, producing clipped, stiff beat on drooping wings.

Nest Identification

Shape  Location 

Lined with moss, grass, feathers, and weeds • sometimes elevated in grass • built by both sexes • 3–5 brownish, greenish, pinkish, or buff eggs blotched with brown; ovate to pyriform, 1.3 x 0.9 inches.



WINTER PLUMAGE

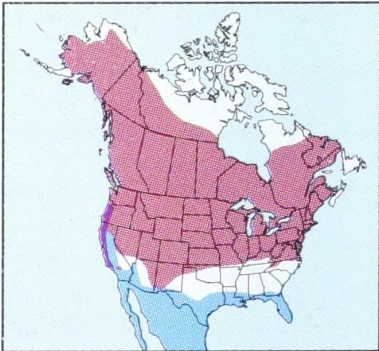
Similar Birds



SOLITARY SANDPIPER
Similar on ground but slightly larger and more slender; darker greenish legs; white eye ring; barred tail with white sides; greater contrast between upperparts and belly; deep wing beats.



COMMON SANDPIPER
Barred darker brown upperparts provide greater contrast with white flanks and belly; duller grayish or straw-colored legs; dark bill with pale base; longer tail extends well beyond folded wings; streaked breast and sides of head • juvenile has tertials with strongly marked edges • rare in Alaskan range.



Plumage Sexes similar	Habitat 	Migration Migratory	Weight 1.4 ounces
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DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE	Species <i>Bartramia longicauda</i>	Length 12 inches	Wingspan 17–20 inches
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UPLAND SANDPIPER

The distinctive silhouette of the Upland Sandpiper is often seen perched on fences, utility poles, rocks, and stumps watching for intruders and predators in the grasslands and prairies it inhabits in summer. This large pale sandpiper has a long slender neck, small dovelike head, large dark eyes, and long tail. In winter the Upland Sandpiper migrates long distances to eastern South America.

• **SONG** Trilling *pulip pulip*. In low circling stiff-winged flight on breeding grounds, emits wolflike whistle *wheelooooooooo*. Usual flight call is piping *quip-ip-ip-ip*.

• **BEHAVIOR** Has ploverlike feeding patterns: runs, stops, then runs again. Not a bird of shores and wetlands like most sandpipers, it frequents hay fields, pastures, and prairies and often perches on poles. Feeds on insects, other invertebrates, and seeds of weeds, grasses, and grains. Upon landing often holds wings above body for 1–2 seconds before folding them.

• **BREEDING** Monogamous. Loose colonies. During courtship flight spreads wings and circles high in sky, singing a melodious song that can be heard up to a mile away.

• **NESTING** Incubation 21–27 days. Young leave nest soon after hatching. First flight at about 30–31 days. Young feed themselves but are tended and protected by both sexes. 1 brood per year.

• **POPULATION** Mostly recovered since large decline in late 1800s. Common in parts of the Great Plains; some decline has been recorded in local populations throughout much of the East and the Northeast.

• **CONSERVATION** Eastern decline due to habitat loss and increased human disturbance.



Flight Pattern

Swift direct flight when traveling some distance. In breeding display flies slowly with flickering wing beats.

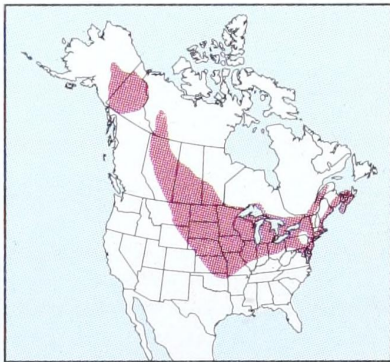
Nest Identification

Shape Location

Lined with dry grass • built by both sexes • 4 creamy pale buff to pinkish buff eggs speckled red-brown, pyriform, 1.8 inches long.

Similar Birds

BUFF-BREASTED SANDPIPER
Smaller; black bill; short yellow legs; buff face and underparts; wings project beyond tail.



Plumage Sexes similar	Habitat	Migration Migratory	Weight 4.8 ounces
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DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE	Species <i>Numenius phaeopus</i>	Length 17–18 inches	Wingspan 31–33 inches
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WHIMBREL

Easily identified by its large size, distinctive head stripes, and decurved bill, this bird is the most widespread of the curlews in North America. During migration it makes frequent stops at salt marshes, coastal shores, and inland lakes and rivers. In flight this bird can easily be distinguished from European and Asian races that occur on the East and West Coasts, respectively, by its dark rump and underwings.

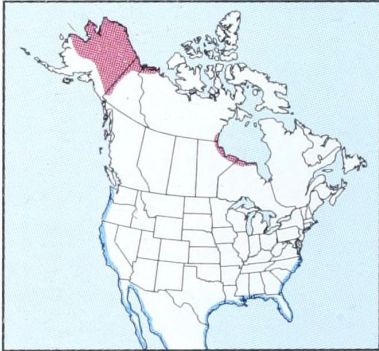


- **SONG** Whistled monotone of 5–7 notes *bibibibibib*. Also calls *ker-lee-ou-ler-lee-ou*, frequently in flight.
- **BEHAVIOR** Often coastal in nonbreeding seasons. Picks up food with bill and probes more than other curlews. Eats insects and their larvae, worms, small mollusks, spiders, crustaceans, and wild berries. Often seen in tidal areas and mudflats, estuaries, grassy farmlands, fields, and lake shores in migration.
- **BREEDING** Monogamous. Occasionally nests in loose colonies. Male has high circling song flight.
- **NESTING** Incubation 22–28 days by both sexes. Precocial young leave nest soon after hatching. Young feed themselves but tended by both sexes. First flight at 35–40 days. 1 brood per year.

Similar Birds

LONG-BILLED CURLEW
Larger; longer, less decurved bill; cinnamon-buff cast overall; deep cinnamon wing linings obvious in flight; lacks bold dark head stripes.

BRISTLE-THIGHED CURLEW
Slightly thicker bill; more buff overall; in flight shows bright cinnamon on rump and tail • Alaskan range.



Flight Pattern

Direct flight with strong fast wing beats, bill extended, and legs trailing behind. Flies in V and straight line formation.

Nest Identification

Shape Location

Lined with lichen, moss, and grass • on ground on small pile of grass or moss • built primarily by female • 3–5 olive to buff eggs blotched with shades of brown and lavender; rather pointed ovate pyriform, 2.3 x 1.6 inches.

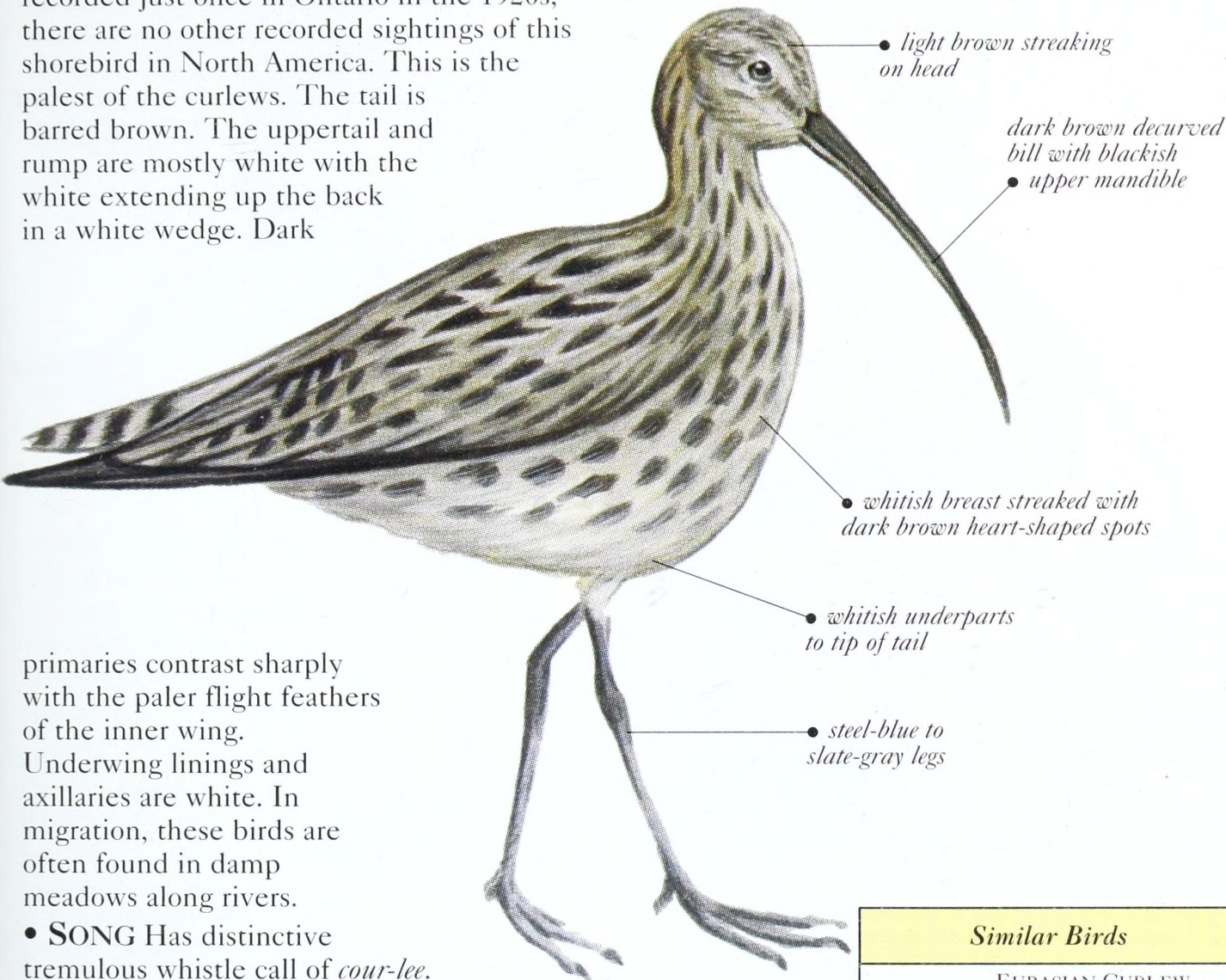
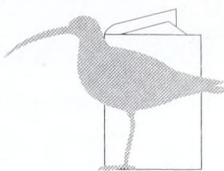
Plumage Sexes similar	Habitat	Migration Migratory	Weight 12.5 ounces
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DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE	Species <i>Numenius tenuirostris</i>	Length 15–16 inches	Wingspan 27–31 inches
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SLENDER-BILLED CURLEW

Very little is known about this nearly extinct bird, which breeds in the taiga zone of Siberia. It was recorded just once in Ontario in the 1920s; there are no other recorded sightings of this shorebird in North America. This is the palest of the curlews. The tail is barred brown. The uppertail and rump are mostly white with the white extending up the back in a white wedge. Dark



primaries contrast sharply with the paler flight feathers of the inner wing. Underwing linings and axillaries are white. In migration, these birds are often found in damp meadows along rivers.

- **SONG** Has distinctive tremulous whistle call of *cour-lee*. Alarm call of *ke-wee*.
- **BEHAVIOR** Feeding habits are not known.
- **BREEDING** Monogamous; small colonies.
- **NESTING** Incubation 27–29 days by both sexes.

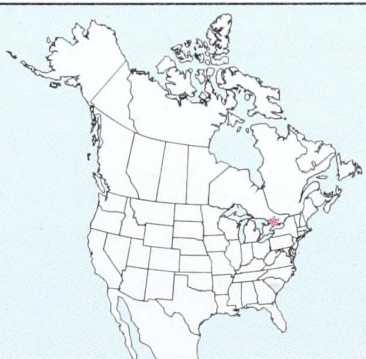
Semiprecocial young leave nest soon after hatching, tended by both parents. First flight at 32–38 days. 1 brood per year.

- **POPULATION** Accidental.
- **CONSERVATION** Considered to be near extinction. Populations are small and are believed to be declining further.

Similar Birds



EURASIAN CURLEW
Larger; buff-colored plumage; diffuse streaking on breast and broad diffuse lore patch; no distinct supercilium.



Flight Pattern

Direct flight with steady rapid wing beats.

Nest Identification

Shape Location

Lined with leaves or grasses • on mound or thicket in dry open area • 4 greenish eggs with brownish markings; oval to short elliptical, 2.3 inches long.

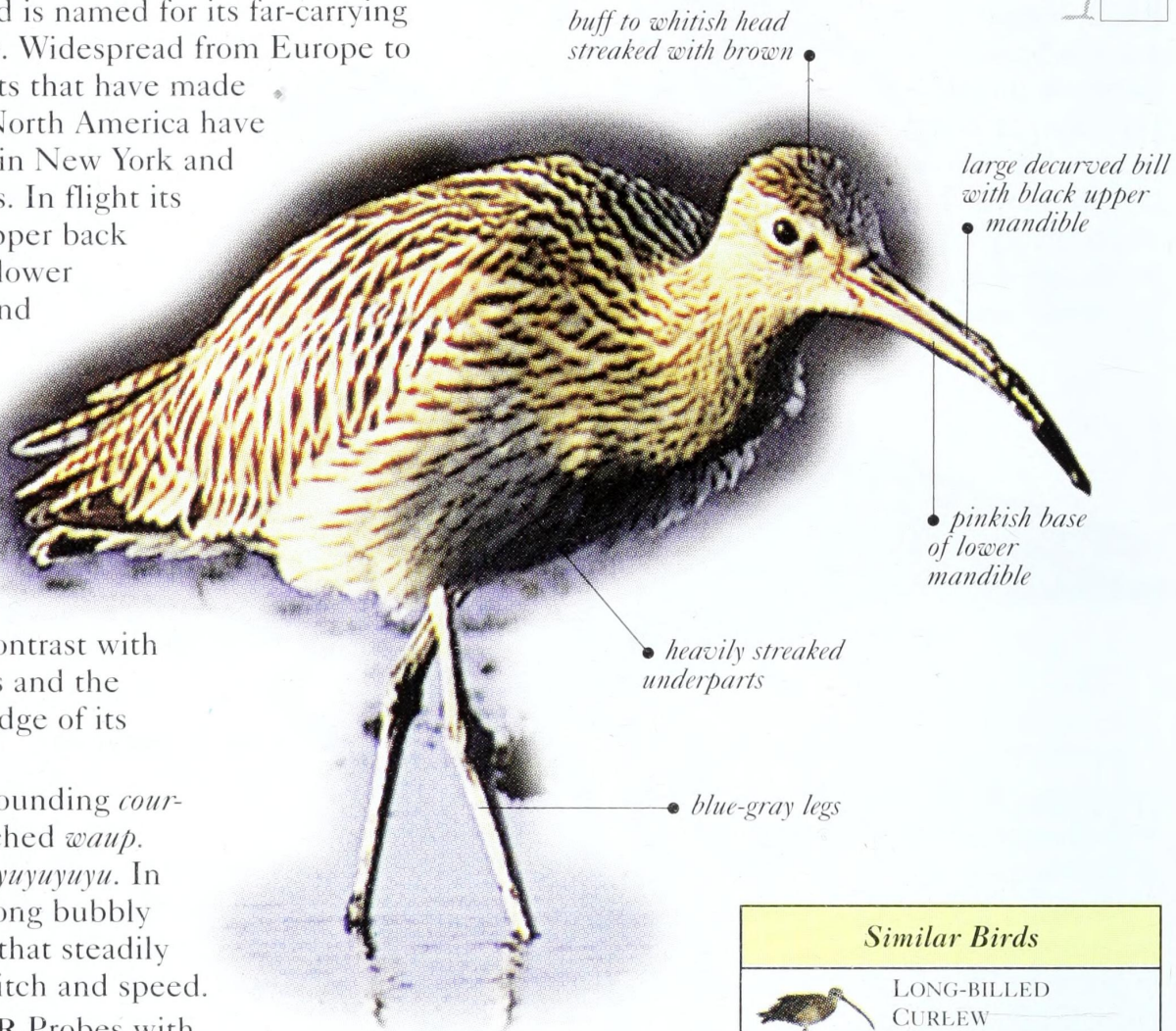
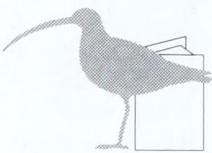
Plumage Sexes similar	Habitat	Migration Migratory	Weight 10.9 ounces
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DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE	Species <i>Numenius arquata</i>	Length 19–24 inches	Wingspan 32–40 inches
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EURASIAN CURLEW

Sometimes called the Common Curlew, this large shorebird is named for its far-carrying call of *cour-loo*. Widespread from Europe to Africa, vagrants that have made their way to North America have been spotted in New York and Massachusetts. In flight its pale brown upper back and its white lower back, rump, and



underwings contrast with dark wing tips and the pale trailing edge of its inner wings.

- **SONG** Resounding *cour-loo* or low-pitched *waup*. Alarm call is *tyuyuyuyu*. In winter sings long bubbly trill and song that steadily increases in pitch and speed.
- **BEHAVIOR** Probes with beak in soil for worms, crabs, and mollusks. Invertebrates make up 75 percent of diet. Picks berries and rarely eats eggs. Male glides over female during display flight. This primarily temperate zone curlew has adapted well to using agricultural areas for nesting and foraging sites.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 27–30 days by both sexes. Precocial young feed themselves but are tended by both sexes. First

flight at 32–38 days. Typically 1 brood per year.

- **POPULATION** Casual to accidental in the Northeast from the Maritime provinces to New York. Common and widespread in Eurasia.

Similar Birds



LONG-BILLED CURLEW
Cinnamon underwings; cinnamon overall, including rump; fine streaking on neck and underparts.



WHIMBREL
Smaller; striped head; dark brown back, wings, rump, and breast.



Flight Pattern

Direct flight with rapid wing beats on long gull-like wings.

Nest Identification

Shape Location

Lined with leaves and grasses • 4 dark olive or green eggs with brownish blotches; oval to short elliptical, 2.7 inches long.

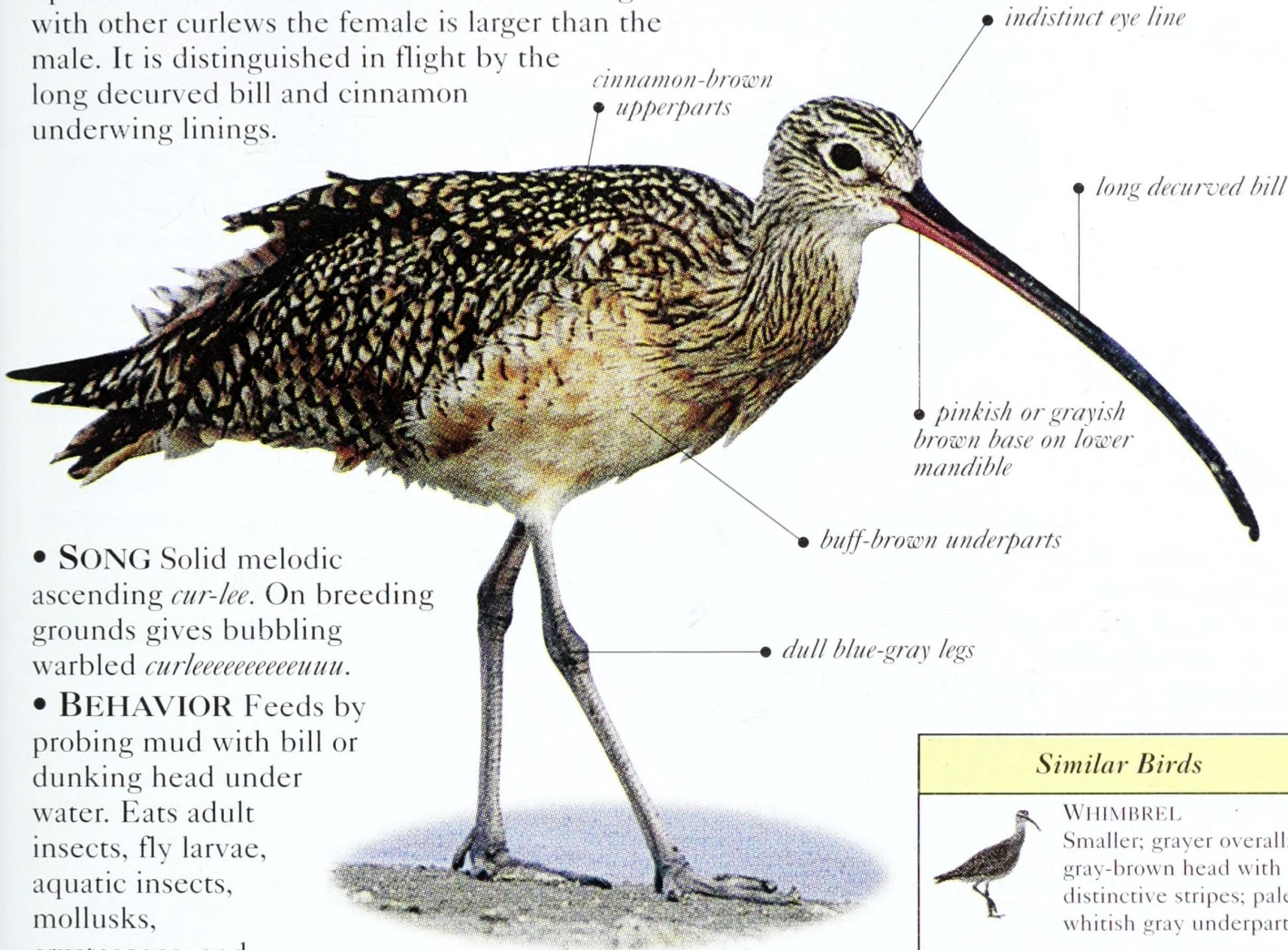
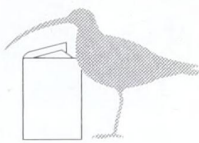
Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.6 pounds
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DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE	Species <i>Numenius americanus</i>	Length 23 inches	Wingspan 36–40 inches
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LONG-BILLED CURLEW

The largest North American member of the sandpiper family has a very long, slender decurved bill. The male claims and defends large territories with a flapping gliding flight. After courtship and mating, these birds usually nest in dry uplands often near rivers but sometimes rangelands or farmlands. As with other curlews the female is larger than the male. It is distinguished in flight by the long decurved bill and cinnamon underwing linings.



- **SONG** Solid melodic ascending *cur-lee*. On breeding grounds gives bubbling warbled *curleeeeeeeeeuuu*.
- **BEHAVIOR** Feeds by probing mud with bill or dunking head under water. Eats adult insects, fly larvae, aquatic insects, mollusks, crustaceans, and small amphibians. Often flies in wedge-shaped flocks, especially in migration.
- **BREEDING** Monogamous. Colonial or semicolonial.
- **NESTING** Incubation 27–30 days by both sexes. Incubating bird sits motionless on nest even if approached. Precocial young leave nest soon after hatching. Tended by both sexes. First flight at 32–45 days. 1 brood per year.

Similar Birds

WHIMBREL
Smaller; grayer overall; gray-brown head with distinctive stripes; pale whitish gray underparts.

MARBLED GODWIT
Smaller; straight or slightly upturned bill; cinnamon secondaries; brighter inner primaries with fewer brown markings.

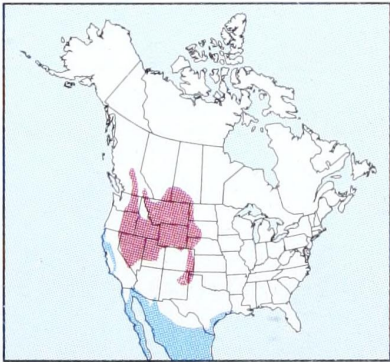
Flight Pattern

Steady, strong wing beats in direct flight. Gliding flight in display on breeding grounds.

Nest Identification

Shape Location

- **POPULATION** Common and widespread in nesting area. Casual to rare on southeastern Atlantic Coast in winter.
- **CONSERVATION** Overgrazing in nesting areas has caused some decline.



Lined with a few bits of grass, weeds, and chips • on ground in open prairie • 3–5 pale to olive-buff eggs with brown and olive spotting, 2.6 inches long.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.2 pounds
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DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE	Species <i>Limosa limosa</i>	Length 16 inches	Wingspan 30 inches
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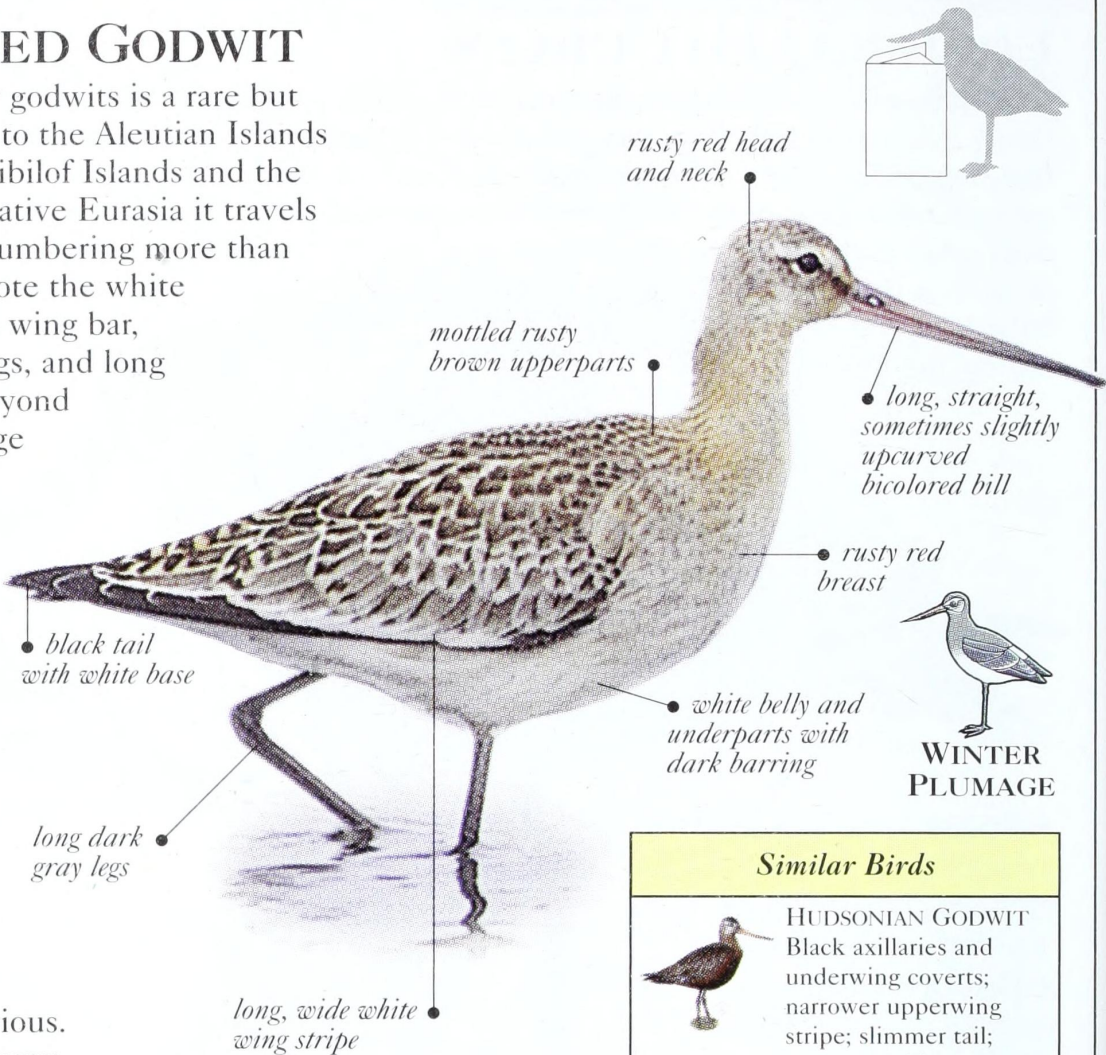
BLACK-TAILED GODWIT

The tallest of the four godwits is a rare but regular spring migrant to the Aleutian Islands and is casual on the Pribilof Islands and the Atlantic Coast. In its native Eurasia it travels in large flocks, often numbering more than a thousand. In flight note the white rump, black tail, white wing bar, white underwing linings, and long legs extending well beyond the tail. Winter plumage shows a gray head, whitish underparts, and gray-brown upperparts.

- **SONG** Display call is clear, repetitious *pee-wit, pee-wit*. Also makes low, throaty *grutto* and growling *wee-eeh*. Contact call is quiet, continuous *tuck* or *keck*.
- **BEHAVIOR** Gregarious. Feeds off dry land in warm weather and moves closer to water in autumn. Eats insects and their larvae and other invertebrates by probing with bill. When its nesting ground is invaded, it aggressively attacks intruder. 30–50 birds often perform synchronized flights with elaborate twists and turns.
- **BREEDING** Monogamous. Loosely colonial. Male has switchback display flight that includes impressive aerial acrobatics with midair tumbling, and rolling and frolicking on the ground.
- **NESTING** Incubation 22–24 days by both sexes. Precocial

young leave nest soon after hatching. Tended by both sexes but feed themselves. First flight at 25–30 days. 1 brood per year.

- **POPULATION** Rare but consistent migrant on western Aleutians. Casual on Pribilofs and along Atlantic Coast.



WINTER PLUMAGE

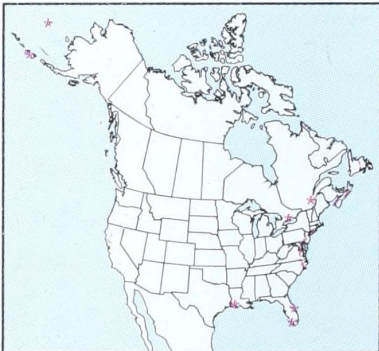
Similar Birds



HUDSONIAN GODWIT
Black axillaries and underwing coverts; narrower upperwing stripe; slimmer tail; narrower white uppertail band.



BAR-TAILED GODWIT
More barring on upperparts; broad dark brown streaking on feathers; rufous-chestnut underparts; white rump; white-barred tail; uniformly dark wings without wing stripe; long, slightly upturned bill.



Flight Pattern	
	
Swift, sometimes erratic flight often low over water.	

Nest Identification	
Shape 	Location 

On tussock hidden in tall grasses • lined with grass • built by female • 4 olive-green eggs blotched with brown; oval to elliptical, 2.2 inches long.

Plumage Sexes similar	Habitat   	Migration Migratory	Weight 8.9 ounces
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DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE

Species *Limosa haemastica*

Length 15 inches

Wingspan 27 inches

HUDSONIAN GODWIT

On the shores of James Bay in Canada, thousands of these birds can be seen migrating together in late August. The male godwit is quiet during migration but has a noisy, complex display flight during breeding. The female is larger and duller with less barring. Both sexes are distinctive in flight with a white rump, a black tail with white base, a white wing stripe, and dusky black wing linings and axillaries. In winter the bird has a gray back and neck and whitish underparts.

- **SONG** Sings a clear high-pitched *toe-wit*, *god-wit*, *whit*, or *toe-whit-ta*.
- **BEHAVIOR** Feeds by probing rapidly in mud with bill. Sometimes wades deep enough to immerse bill and head in water. Eats mollusks, marine worms, crustaceans, and insects. Wary. Only shorebird with undulating flight pattern. Flies in long lines or V-formation in migration.
- **BREEDING** Monogamous. Gregarious.
- **NESTING** Incubation 22–25 days by female during day and male at night. Precocial young leave nest soon after hatching and feed themselves. Tended by both sexes. First flight at 30 days. Parents very aggressive in defense of young. 1 brood per year.
- **POPULATION** The Hudsonian Godwit is fairly common to uncommon on its breeding grounds (but total breeding range poorly known). Uncommon to casual migrant on the Great Plains in spring and on the East Coast in autumn migration. Casual on the Pacific Coast.

brownish black back with white-tipped feathers giving scaly appearance

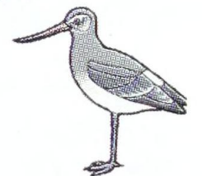
long pointed slightly upcurved creamy pink bill with black tip

black barring overall

dark chestnut underparts

dark blue-gray legs

black-and-white tail



WINTER PLUMAGE

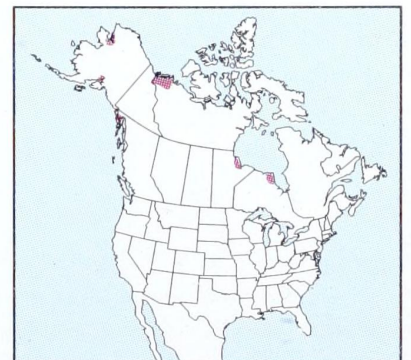
Similar Birds



MARbled GODWIT
Larger; lacks black-and-white wing and tail pattern; grayish cinnamon overall; cinnamon wing linings; boldly spangled upperparts.



BLACK-TAILED GODWIT
Broad wing bar on tail reaches to outer primaries; bright white axillaries and underwing coverts; less white on rump and upperwing.



Flight Pattern



Swift powerful undulating flight. Flies in straight lines or V-formation.

Nest Identification

Shape Location

Sparsely lined with dead leaves and fresh grass • on tussock hidden under marsh grass or shrubs • built by both sexes • 3–4 olive-buff to olive-brown eggs sparsely marked with olive-brown, 2.2 inches long.

Plumage Sexes similar

Habitat

Migration Migratory

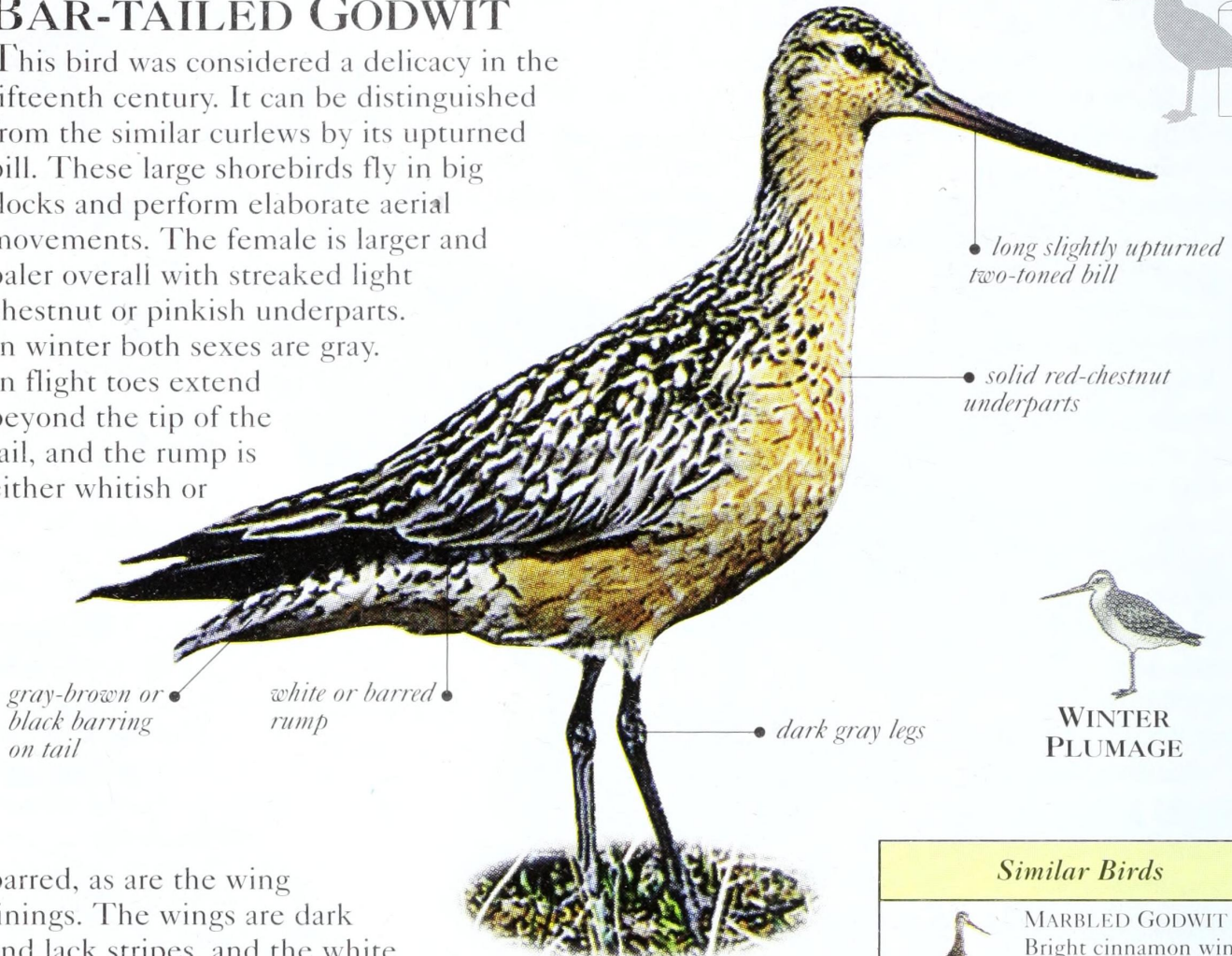
Weight 7.8 ounces

DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE	Species <i>Limosa lapponica</i>	Length 16 inches	Wingspan 28 inches
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BAR-TAILED GODWIT

This bird was considered a delicacy in the fifteenth century. It can be distinguished from the similar curlews by its upturned bill. These large shorebirds fly in big flocks and perform elaborate aerial movements. The female is larger and paler overall with streaked light chestnut or pinkish underparts. In winter both sexes are gray. In flight toes extend beyond the tip of the tail, and the rump is either whitish or



barred, as are the wing linings. The wings are dark and lack stripes, and the white tail has dark brown to black bars.

- **SONG** Usually silent. On breeding grounds gives trilling song; slightly nasal dry *kek*; barking *kak-kak*; or *keewick*.
- **BEHAVIOR** Feeds by wading into water and picking from mud's surface and by probing with side-to-side motion. Eats insects, crustaceans, marine worms, and mollusks. Nests on tundra and in swampy areas near lakes. Flocks in winter.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 20–21 days by both sexes. Soon after hatching precocial young are led to nearby marshes where they stay until they are able to fly. Young feed themselves but are tended by both sexes. 1 brood per year.

Flight Pattern

Direct flight with strong steady wing beats.

Nest Identification

Shape Location

- **POPULATION** Uncommon breeder in western Alaska. Casual along Pacific Coast. Very rare migrant along Atlantic Coast.

Similar Birds

MARbled GODWIT
Bright cinnamon wings, rump, and tail.

BLACK-TAILED GODWIT
Longer legs and neck; flatter forehead; slightly more blunt, less up-curved bill; white rump and belly; heavy, irregular barring on lower breast and belly; wide black terminal tail band; bold white stripe in wing.



Usually on moist or mossy tundra hidden in grass on tussock • lined with moss, lichen, birch leaves, and grasses • built by both sexes • 2–4 olive or pale brown eggs sparsely spotted with brown, 2.2 inches long.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 10.8 ounces
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DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE	Species <i>Limosa fedoa</i>	Length 18–20 inches	Wingspan 32 inches
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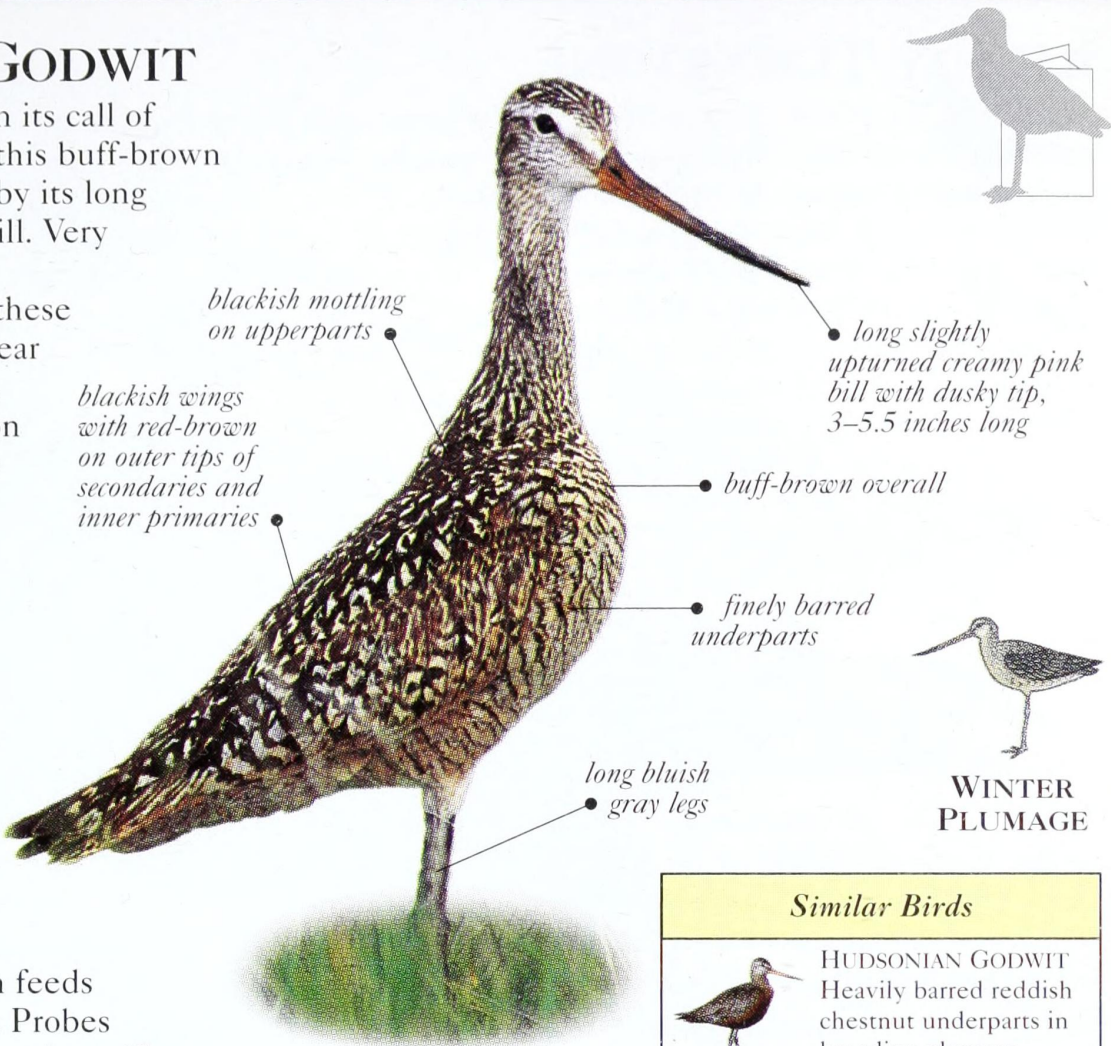
MARBLED GODWIT

Taking its name from its call of *godWHIT*, *godWHIT*, this buff-brown bird is distinguished by its long upturned bicolor bill. Very social and nesting in semicolonial groups, these shorebirds have no clear territorial boundaries. Most spend winters on the coast and migrate in flocks. In flight note the cinnamon wing linings and cinnamon-buff in the primary and secondary feathers.

- **SONG** Distinctive bold grating *cor-ack*, *terWHIT*, or *godWHIT*. Repetitive barking *rack-a* or *raddica* in display.
- **BEHAVIOR** Often feeds by wading into water. Probes with bill in tidal flats and mudflats for crustaceans, mollusks, and worms. Also eats insects, including grasshoppers, and vegetal materials, including seeds and berries. Often flocks in nonbreeding seasons. Prefers high plains and rangelands, often nesting in grassy meadows near water. In migration flocks fly in long lines with the front changing irregularly.
- **BREEDING** Monogamous. Loosely colonial. Generally noisy when breeding.
- **NESTING** Incubation 21–23 days by both sexes. Precocial young leave nest soon after hatching. Tended by both sexes. First flight at about 21 days. 1 brood per year.
- **POPULATION** Common to fairly common on interior

breeding grounds. In winter common on the West Coast and fairly common on Texas coast and in Florida. Rare but regular on tidal flats in the East.

- **CONSERVATION** Declining because of the conversion of habitat to farmland.



WINTER PLUMAGE

Similar Birds



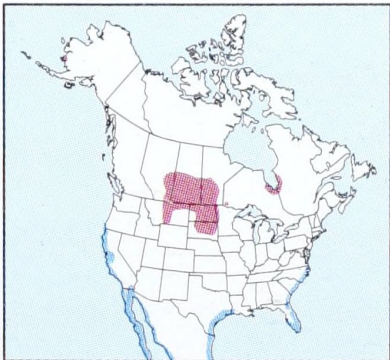
HUDSONIAN GODWIT
Heavily barred reddish chestnut underparts in breeding plumage



- gray and white underparts in winter
- black tail with white base; white rump; dusky black wing linings in flight; dusky flight feathers; bold white wing stripe.



LONG-BILLED CURLEW
Long decurved bill; cinnamon flight feathers more heavily marked with brown; larger.



Flight Pattern	
	
Strong swift direct flight.	

Nest Identification	
Shape 	Location 

Lined with dry grasses • in grassy prairies not far from water on dry ground in grasses • 3–5 greenish to olive-buff eggs lightly marked with brown, 2.2 inches long.

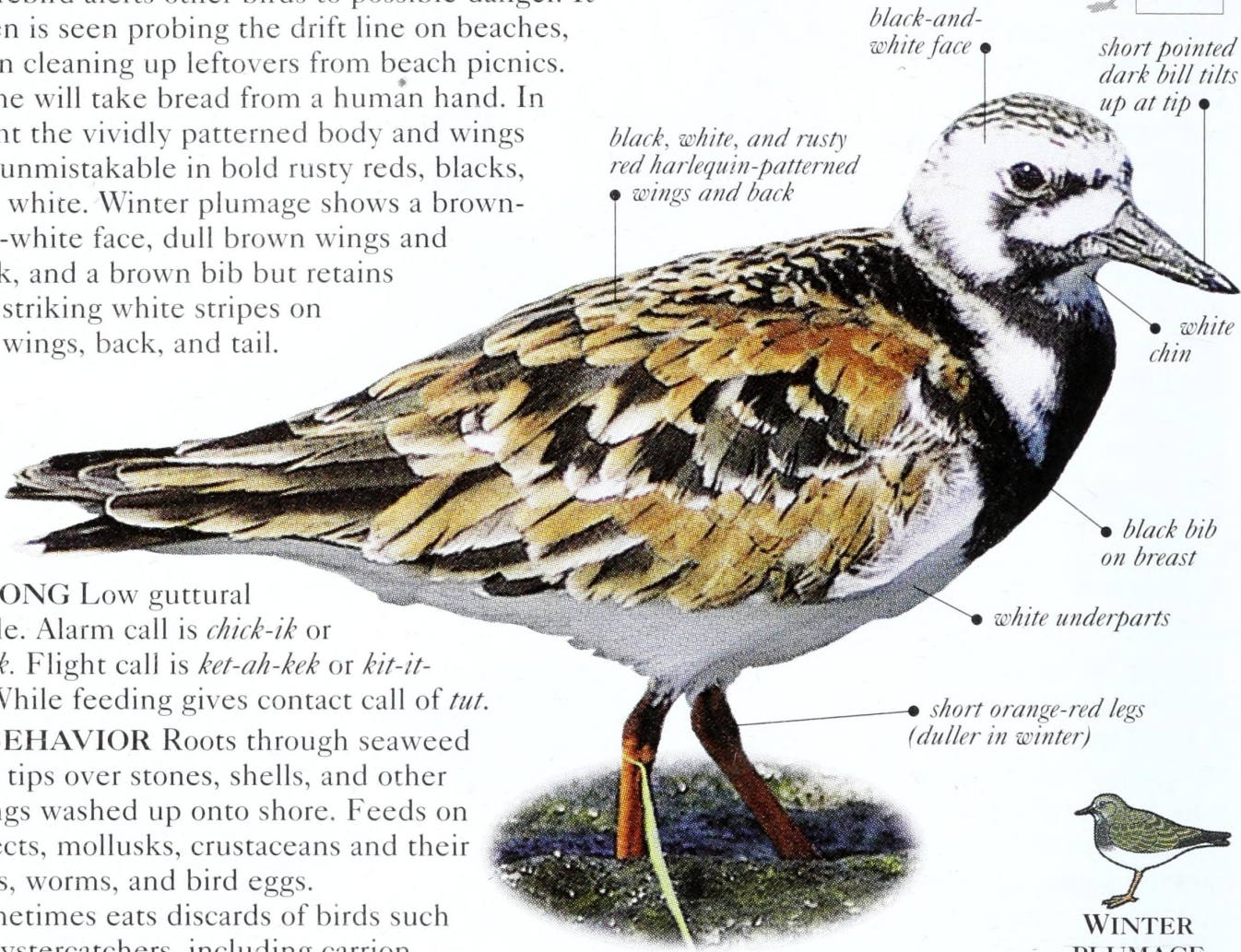
Plumage Sexes similar	Habitat 	Migration Migratory	Weight 11.3 ounces
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DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE	Species <i>Arenaria interpres</i>	Length 9–10 inches	Wingspan 17–18 inches
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RUDDY TURNSTONE

The alarm cry of this stout little ploverlike shorebird alerts other birds to possible danger. It often is seen probing the drift line on beaches, even cleaning up leftovers from beach picnics. Some will take bread from a human hand. In flight the vividly patterned body and wings are unmistakable in bold rusty reds, blacks, and white. Winter plumage shows a brown-and-white face, dull brown wings and back, and a brown bib but retains the striking white stripes on the wings, back, and tail.



- **SONG** Low guttural rattle. Alarm call is *chick-ik* or *kewk*. Flight call is *ket-ah-kek* or *kit-it-it*. While feeding gives contact call of *tut*.
- **BEHAVIOR** Roots through seaweed and tips over stones, shells, and other things washed up onto shore. Feeds on insects, mollusks, crustaceans and their eggs, worms, and bird eggs. Sometimes eats discards of birds such as oystercatchers, including carrion. May eat coconut meat as well. Forages alone or in small flocks often mixed with other shorebirds. Other shorebirds may nest near Turnstones to gain protection from predators.
- **BREEDING** Monogamous.
- **NESTING** Incubation 21–24 days by both sexes, but female does more. Precocial young leave nest soon after hatching but feed themselves. Tended by both sexes, but female leaves before first flight at 19–21 days. 1 brood per year.

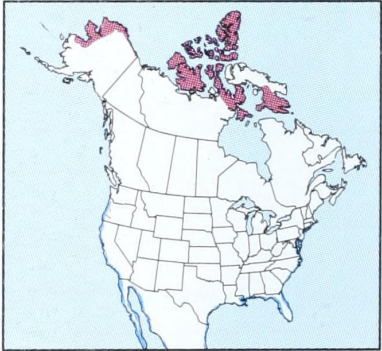


Similar Birds



BLACK TURNSTONE
Dark chin; lacks chestnut or rust coloring; dark reddish brown legs
• Alaskan and West Coast range.

• **POPULATION** Common and widespread on tundra breeding grounds and on coasts in winter. Casual to rare inland in migration, except around the Great Lakes where the species is more common.



Flight Pattern



Swift direct flight with rapid wing beats.

Nest Identification

Shape  Location 

Lined with bits of dry plants, withered leaves, moss, grass, or seaweed • in open tundra • built by female • 2–4 olive-green to olive-buff eggs marked with browns and blacks, 1.6 inches long.

Plumage Sexes similar	Habitat 	Migration Migratory	Weight 3.9 ounces
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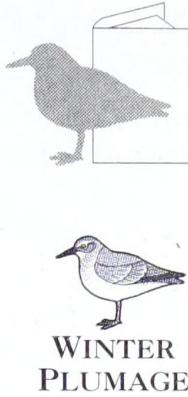
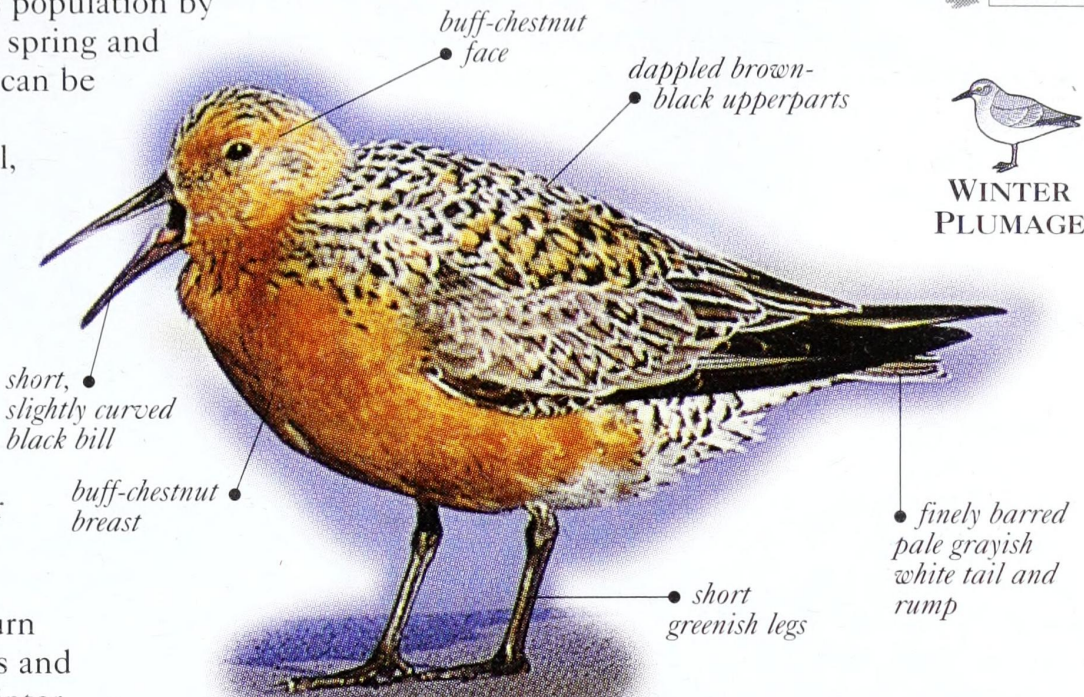
DATE _____ TIME _____ LOCATION _____

Family	SCOLOPACIDAE	Species	<i>Calidris canutus</i>	Length	10–11 inches	Wingspan	20 inches
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RED KNOT

At one time the Red Knot was one of the most abundant shorebirds in North America, but 19th-century market hunters diminished its population by slaughtering it in both spring and autumn migrations. It can be distinguished by its chunky body, short bill, and short greenish legs. Known as classic high-arctic breeders and long-distance migrants, Red Knots winter mostly in the lower half of South America and may travel 19,000 miles per year. Dappled brown-black upperparts and chestnut underparts turn to pale gray upperparts and white underparts in winter.

- **SONG** Generally silent. Feeding birds and flocks in flight emit harsh monosyllabic *knut*. Males on breeding grounds whistle a melodious *poor-me*.
- **BEHAVIOR** Generally feeds on beaches, tidal flats, and lagoons. Eats mollusks, crabs, and insects and their larvae. When feeding in mud probes for food with bill. Often migrates and winters in large flocks that wheel, bank, and roll together in tight, dashing formations. Breeding display flight involves high, circling flight on still or quivering wings, ending with a rapid, tumbling fall, and landing with wings upraised.
- **BREEDING** Monogamous. Gregarious.
- **NESTING** Incubation 21–23 days by both sexes. Precocial young leave nest soon after hatching. Tended by both sexes. First flight at 18–20 days. Female leaves before first flight. 1 brood per year.
- **POPULATION** Uncommon to fairly common on breeding



Similar Birds



CURLEW SANDPIPER
Slim and small; longer curved bill; pale rump • red underparts in breeding plumage.



GREAT KNOT
Longer bill; large body; lacks robin-red face, neck, and underparts; heavily spotted white underparts; heavy black spotting on breast; black streaking on neck and head; more heavily barred pale rump and tail • spring migrant in western Alaska.

Flight Pattern



Swift direct flight with rapid wing beats. Flies in V or straight line formation.

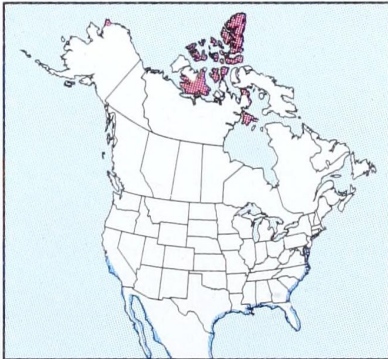
Nest Identification

Shape 

Location 

grounds and in migration on Atlantic Coast. Uncommon transient on Pacific Coast. A rare transient inland.

- **CONSERVATION** Federal protection has helped increase populations of this bird.



Lined with leaves, lichen, and moss • hollow in clumps of lichens among rocks and scant plant life near water • built by both sexes, but male does most • 3–4 olive-buff eggs marked with brown-black spot; pyriform, 1.6 inches long.

Plumage	Sexes similar	Habitat		Migration	Migratory	Weight	4.4 ounces
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DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE	Species <i>Calidris alba</i>	Length 8 inches	Wingspan 15 inches
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SANDERLING

This sandpiper runs back and forth on the beach with the ebb and flow of the water, chasing receding waves to snatch up exposed invertebrates. It also stands on one leg for long periods. The palest of the sandpipers, this bird differs from others in its family by its lack of a hind toe. Its light-colored winter plumage blends in with dry sand. The Sanderling nests in the arctic of both hemispheres and winters to the southern end of both, traveling as far as eight thousand miles between its summer and winter homes. In flight the wings show a broad white stripe, black leading and trailing edges, and white underwings. Its white tail has black central tail feathers.

- **SONG** Harsh *kree*. Also gives a *twick* or *kip* while in flight.
- **BEHAVIOR** Hunts for sand crabs and mollusks in the sand at the water's edge. Also eats other crustaceans, marine worms, amphipods, isopods, and insects. On arctic breeding grounds eats insects and insect larvae, some plants, leaves, and algae. In flight flocks often wheel and turn, changing direction with flashing wings and a change of color, first showing dark backs then light underparts.
- **BREEDING** Monogamous or polyandrous. Colonial.
- **NESTING** Incubation 24–31 days usually by male, while female often lays second clutch, incubating 1 while male incubates other. Some females take 2 mates, lay a clutch in each nest, then leave the males to tend the eggs and young in their respective nests. Precocial young leave nest soon after hatching;

feed themselves but tended by at least 1 parent; female leaves if male is present. First flight at 17 days. 1–2 broods per year.

- **POPULATION** Common.
- **CONSERVATION** Decline due to destruction of habitat.

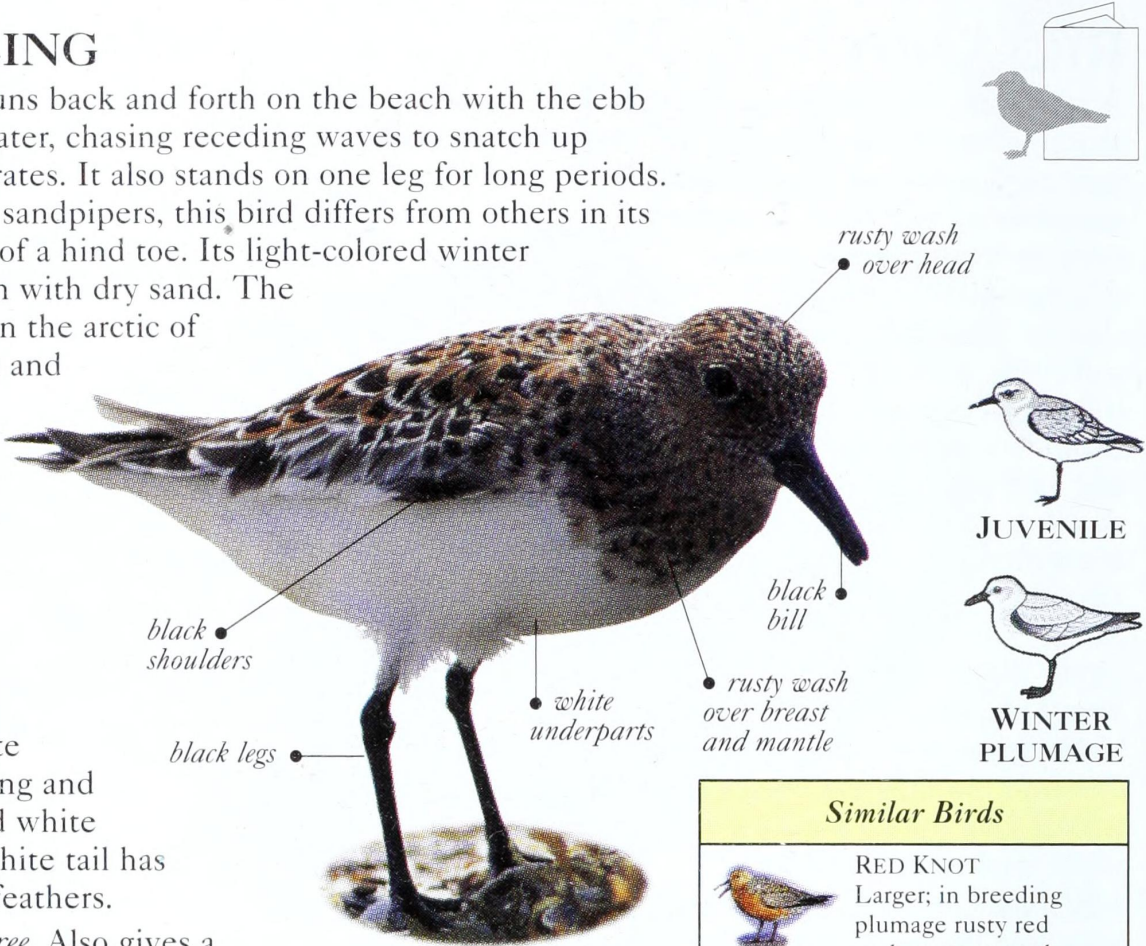
Flight Pattern



Swift direct flight with rapid wing beats.

Nest Identification

Shape  Location 



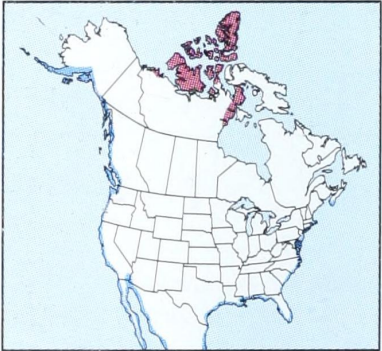
Similar Birds



RED KNOT
Larger; in breeding plumage rusty red underparts extend onto lower breast and upper belly; barred flanks and undertail coverts; barred rump; in nonbreeding lacks black in shoulders.



DUNLIN
Slightly larger; stout bill droops at the tip
• in winter has gray-brown upperparts, lores, and cheeks; grayish throat and upper breast with fine dusky streaking; lacks black in bend of wing.



Plumage Sexes similar	Habitat 	Migration Migratory	Weight 4.2 ounces
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DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE	Species <i>Calidris pusilla</i>	Length 6.5 inches	Wingspan 11–13 inches
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SEMIPALMATED SANDPIPER

This coastal inhabitant gets its name from the partial webbing it has between its front toes. This bird often mingles with other shorebirds such as sanderlings and Semipalmated Plovers around the time of high tide. Like most shorebirds, Semipalmated Sandpipers will frequently sleep standing on one or both legs, with their bill tucked into their back feathers. Sometimes they will travel along the beach hopping on one leg. Grayer in all plumages than most peeps and have less streaking on the breast and no spotting on the flanks.

- **SONG** Short *churk* or *churp*. On breeding ground, song given in flight is a monotonous *kee-kee-kee*.
- **BEHAVIOR** The bird is often seen running along the beach, pecking and occasionally probing the sand, searching for insects, worms, small mollusks, and small crustaceans. Generally feeds farther from the water's edge than other peeps. Often gathers in large flocks in migration.
- **BREEDING** Monogamous. Gregarious. Aggressive during breeding season.
- **NESTING** Incubation 18–22 days by both sexes. Precocial young leave nest on day of hatching and feed themselves, tended by both parents. Female abandons after few days. First flight at 14–19 days. 1 brood per year.
- **POPULATION** Fairly common to common on breeding grounds. Common migrant from Atlantic Coast to central Great

Flight Pattern



Swift flight on rapidly beating wings. Flushed birds rise in zigzag pattern. Flocks twist and turn as precise unit.

Nest Identification

Shape  Location 

Plains; rare migrant in the West, south of Canada. Casual to rare in Florida in winter.

- **CONSERVATION** Species still abundant but is being threatened due to diminishing stopover points.

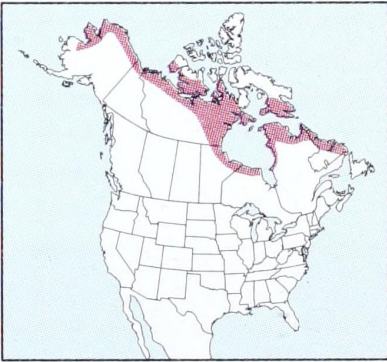
Grass-lined with leaves and moss • nests generally built on grassy slope or mound surrounded by short vegetation • built by both sexes • 2–4 whitish to olive-buff eggs, blotched with brown, chestnut, or gray; ovate pyriform to subpyriform, 0.8 x 1.2 inches.



Similar Birds



WESTERN SANDPIPER
Bright rufous on scapulars, back, ear patch, and crown; gray plumage, less uniformly brown; larger and lankier; longer legs; longer, slightly decurved bill (especially female).



Plumage Sexes similar	Habitat   	Migration Migratory	Weight 1.1 ounces
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DATE _____ TIME _____ LOCATION _____

Family	SCOLOPACIDAE	Species	<i>Calidris mauri</i>	Length	6–7 inches	Wingspan	12–14 inches
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WESTERN SANDPIPER

A long-distance migrant, the Western Sandpiper flies southeast and remains on North and South American coasts during the winter months. It is the western relative of the Semipalmated Sandpiper, which it closely resembles

except for a longer bill that usually appears slightly drooped at the tip. In breeding plumage it has arrow-shaped spots on the sides and breast and rufous on the crown, ear patches, and scapulars. In winter plumage it is one of the palest “peeps,” with almost no contrast in the faintly mottled upperparts.

- **SONG** High raspy *jeet* or *cheet*.
- **BEHAVIOR** Often can be identified by a distinctive feeding pattern: while snatching invertebrates it occasionally eats with its head immersed in the water. Feeds primarily on insects but also takes small crustaceans, mollusks, and worms. In migration and on wintering grounds, often occurs in large flocks. Coastal outside breeding season, but fairly common inland in migration.
- **BREEDING** Monogamous. Colonial. Highly gregarious.
- **NESTING** Incubation 18–21 days by both sexes. Precocial young leave nest a few hours after hatching. Female departs, but male tends young. Young feed themselves. First flight at

17–21 days. 1 brood per year.

- **POPULATION** Common to abundant on breeding grounds; common in migration and on US coastal wintering grounds.
- **CONSERVATION** Abundant but still vulnerable to habitat loss at stopover points.

Flight Pattern

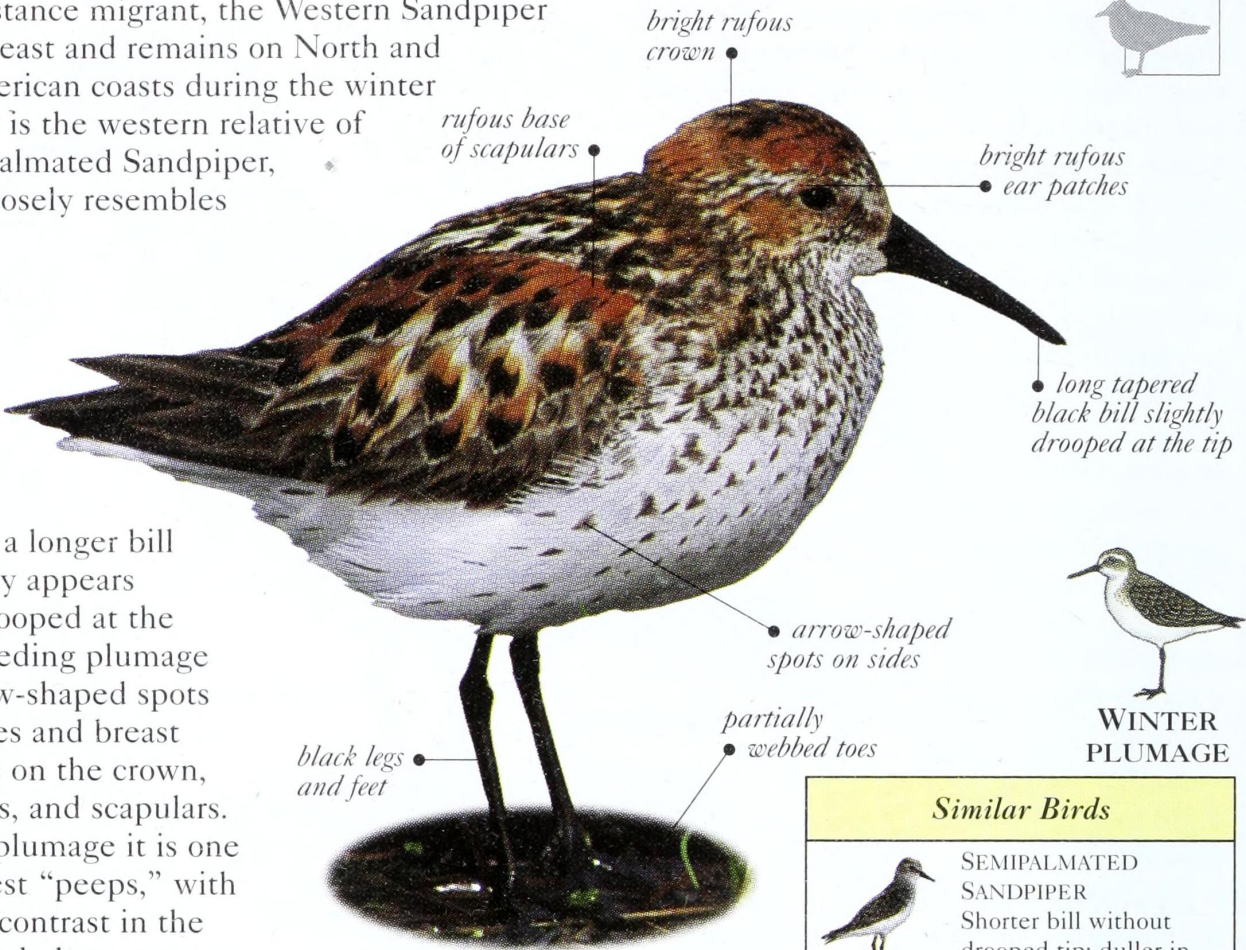


Swift direct flight with rapid wing beats. Large tight flocks twist and turn in coordinated movements.

Nest Identification

Shape  Location 

Lined with leaves, grass, and lichens • slightly elevated on moist or dry tundra near water • male hollows out several sites; female chooses one and lines nest • 3–5 whitish brown eggs marked with red-brown spots; pyriform, 0.87 x 1.2 inches.



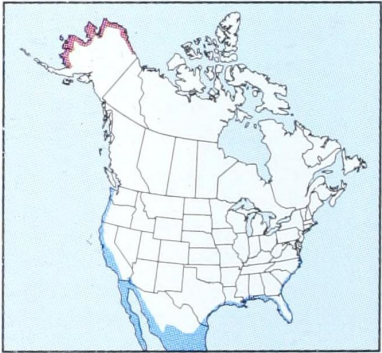
Similar Birds



SEMPIPALMATED SANDPIPER
Shorter bill without drooped tip; duller in color; less rufous; faint or nonexistent mantle and scapular lines; dark brown upperparts edged with buff; makes harsh *churk*.



LEAST SANDPIPER
Smaller; brown wash on head, head, neck, and breast with dark brown streaking; yellow-green legs and feet.



Plumage	Sexes similar	Habitat		Migration	Migratory	Weight	0.8 ounce
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DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE	Species <i>Calidris ruficollis</i>	Length 6.25 inches	Wingspan 11–12 inches
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RED-NECKED STINT

Previously called the Rufous-necked Sandpiper, this native of Asia is a rare breeder in the summer in western and northern Alaska. It is one of the easier “peeps” to identify in breeding plumage, with rufous on the head, neck, and mantle. Adults migrate before juveniles and sometimes

reach their destinations still wearing their breeding plumage. In flight shows uppertail coverts with a black center and white margins. Winter plumage shows gray wings and back and darker gray streaks on the sides.

- **SONG** Coarse *chit* or *prip*. Also has squeaking call of *week*. Display flight song of *wheet, wheet, whek, whek*.
- **BEHAVIOR** Forages on shore by picking items off surface; sometimes probes mud. Eats insects, crustaceans, and worms. Off breeding grounds feeds in mixed flocks with other shorebirds. Mainly coastal and highly gregarious when not breeding, preferring mudflats. Prefers inland wetlands during migration, when it flies in tight, highly maneuverable flocks.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 21–23 days by both sexes; if 2 broods male incubates first, and female incubates second. Precocial young leave nest soon after hatching and feed themselves. Tended by 1 parent. First flight at 15–18 days. 1–2 broods per year.

Flight Pattern



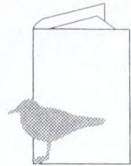
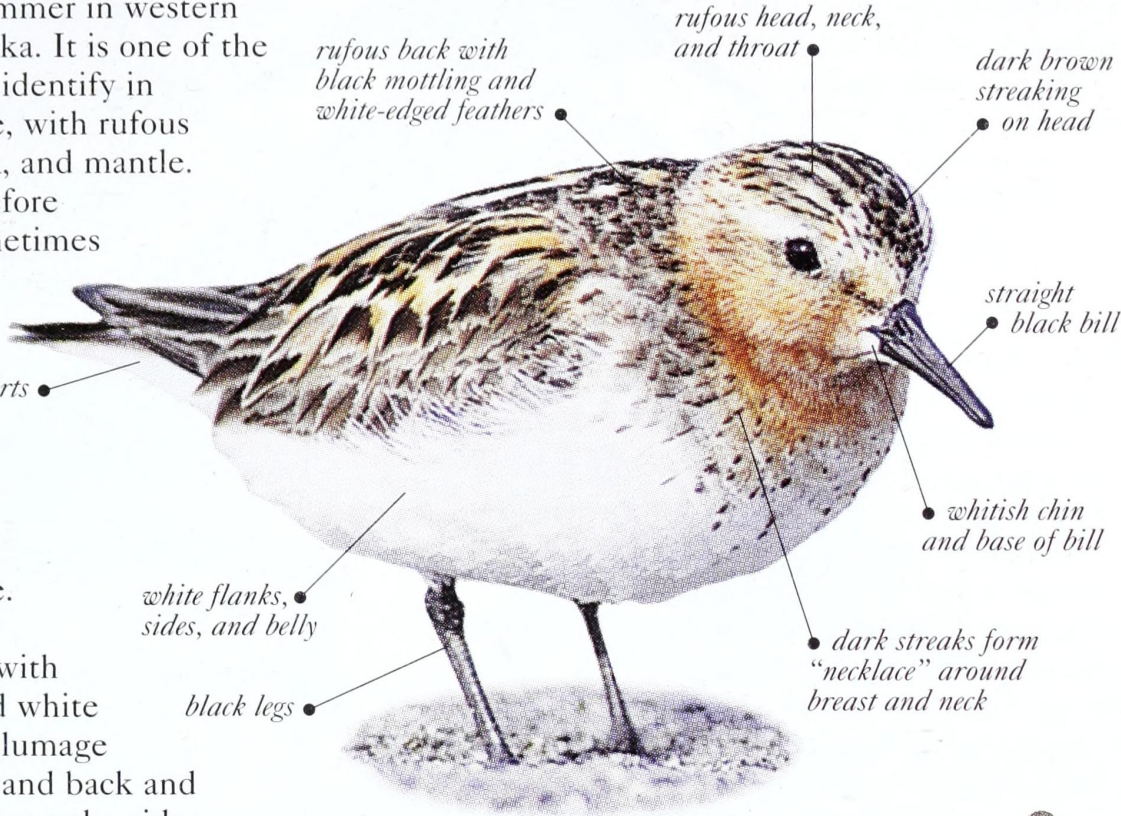
Swift direct flight with rapid wing beats.

Nest Identification

Shape  Location 

- **POPULATION** Uncommon to rare on Alaskan breeding grounds. Regular migrant to west coast of Alaska and islands in the Bering Sea. Casual to accidental on both Pacific and Atlantic Coasts in migration. Accidental inland.

Lined with willow leaves • small pile of grass or tundra moss • 4 yellow eggs dotted with rufous-cinnamon at larger end; pyriform, 1.1 inches long.



WINTER PLUMAGE

Similar Birds



WESTERN SANDPIPER
SEMPIPALMATED SANDPIPER
Longer bill; longer legs; darker forehead; webbed toes • in breeding plumage lack rufous on breast.



Plumage Sexes similar	Habitat 	Migration Migratory	Weight 1.1 ounces
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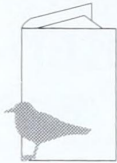
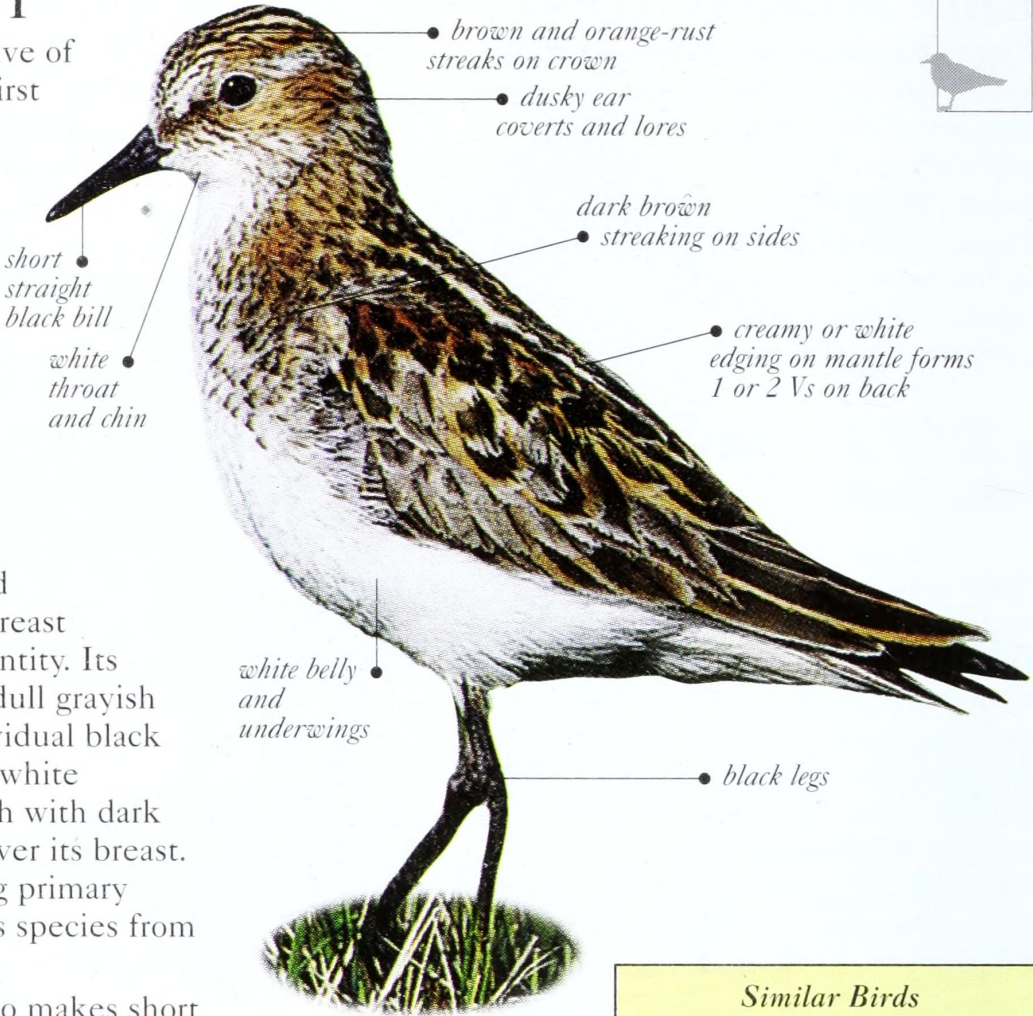
DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE	Species <i>Calidris minuta</i>	Length 6 inches	Wingspan 11–12 inches
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LITTLE STINT

This sparrow-sized native of the Arctic regions was first recognized in North America in 1975. Since that time it has been found as a casual migrant on both coasts and as a rare visitor, usually in spring migration, to islands off western Alaska. In breeding plumage its small size; short straight black bill; black legs; and rusty red head, upperparts, and breast are good clues to its identity. Its winter plumage shows dull grayish brown upperparts, individual black feathers with rusty and white edgings, and a gray wash with dark grayish brown streaks over its breast. In all plumages the long primary projection separates this species from other similar “peeps.”

- **SONG** Call is *stít*. Also makes short trill, *chit*, or *see-seet* call. Sings weak *swee-swee-swee*.
- **BEHAVIOR** Pecks quickly at surface and probes in mud with bill. Eats various insect larvae and other invertebrates. Highly gregarious, moving in flocks in migration and winter. Becomes aggressive and territorial when feeding. Often tame, allowing close approach. In flight, flocks often quickly wheel and dart in migration and on wintering grounds.
- **BREEDING** Serial polygamy. Colonial.
- **NESTING** Incubation 21–23 days; if 2 broods male and female incubate separate clutches. Precocial young leave nest day of hatching and feed themselves, but are tended by at least



Similar Birds



RED-NECKED STINT
In breeding plumage has darker brick-red around head, neck, throat, and breast
• larger; necklace of dark brown streaks; more elongated body; shorter tarsi; longer bill.



LEAST SANDPIPER
Yellow legs; grayer upperparts.



Flight Pattern

Swift direct flight with rapid wing beats.

Nest Identification

Shape Location

1 parent. First flight at 15–18 days. 1–2 broods per year.
• **POPULATION** Accidental in western Alaskan islands. Casual on Pacific and Atlantic Coasts. Common to abundant on Eurasian breeding grounds and wintering grounds.

Lined with willow and dwarf birch leaves • on raised grassy or mossy areas
• 4 olive-green or yellow eggs with reddish brown mottling; pyriform, 1.1 inches long.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.8 ounce
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DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE	Species <i>Calidris temminckii</i>	Length 6 inches	Wingspan 11–12 inches
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TEMMINCK'S STINT

Frequenting marshes rather than the mudflats where most stints gather, this bird is solitary except during migration, when up to two hundred gather in small flocks in its native Eurasian range. During spring and fall vagrants have flown to St. Lawrence Island and the Pribilof and Aleutian Islands. Horizontal posture on short dull yellow to yellow-green legs gives the bird a crouched look. The white outer tail feathers distinguish this small gray stint from all others.

• **SONG** Rapid series of dry *tirrrr*. In flight makes high-pitched cricketlike *treeririririr*.

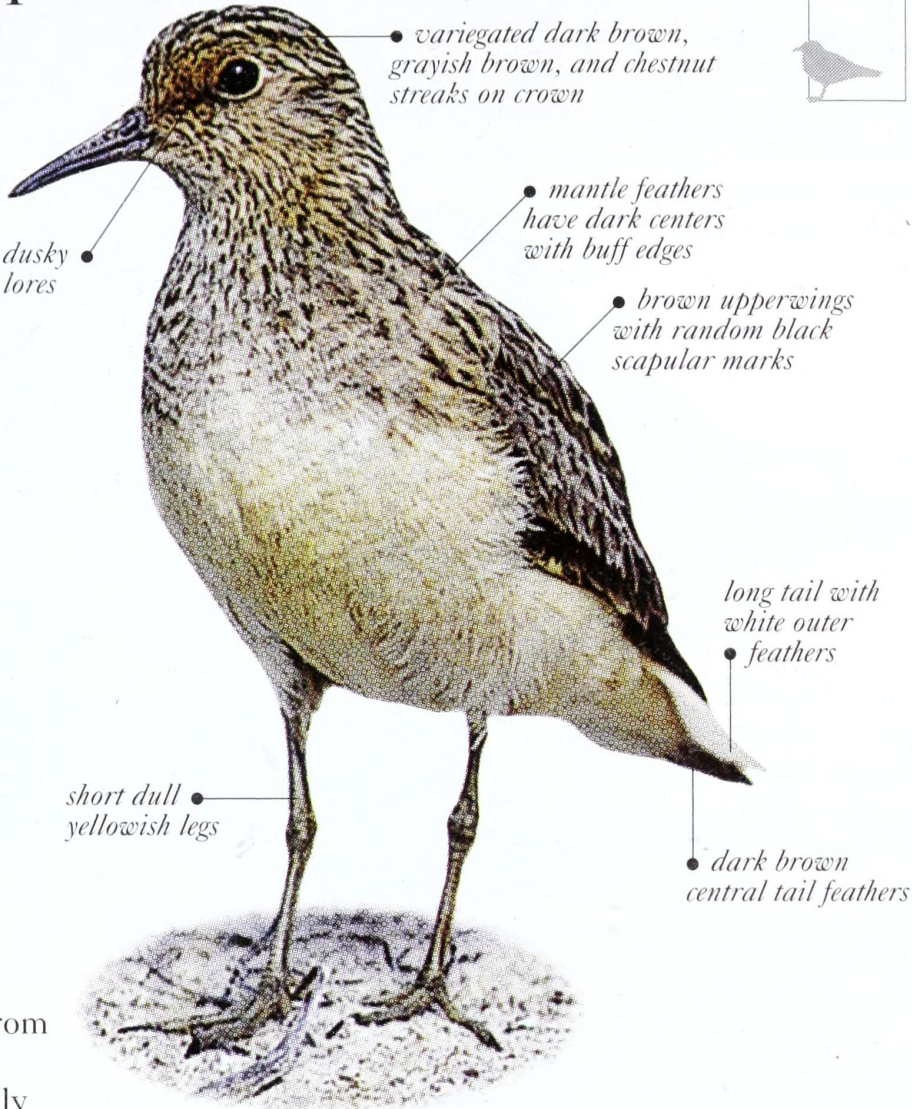
• **BEHAVIOR** Eats various small invertebrates, especially insects and their larvae. Will sometimes feed slowly and methodically in vegetation at the edges of wetlands, picking prey from ground and vegetation. When approached often crouches. Usually solitary or in pairs or small flocks. In nonbreeding season prefers inland and freshwater sites to coastal locations. In display flight male sings for several minutes while circling and hovering. If flushed quickly flies to great height with rapid jerking flight.

• **BREEDING** Polygamous. Solitary.

• **NESTING** Incubation 21–22 days. Male and female each tend own nest if more than 1 clutch of eggs is laid. Precocial young leave nest day of hatching but attended by 1 adult. First flight at 15–18 days.

1–2 broods per year.

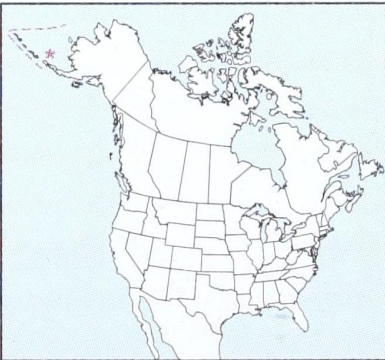
• **POPULATION** Rare spring and autumn migrant on Alaskan islands in Bering Sea. Accidental occurrence elsewhere in North America.



Similar Birds



BAIRD'S SANDPIPER
Shorter tail; wing tips jut beyond tail tip at rest; darker brown upperparts; darker buff wash on breast; dark legs.



Flight Pattern

Swift direct flight with rapid wing beats.

Nest Identification

Shape Location

Lined with sedge stems and willow leaves • on grass or under bush or small tree near water • 4 brownish eggs; pyriform, 1.1 inches long.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.8 ounce
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DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE	Species <i>Calidris minutilla</i>	Length 6 inches	Wingspan 11–12 inches
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LEAST SANDPIPER

During migration a small sandpiper on the edge of an inland pool or wet area is likely to be this species. The Least Sandpiper is the smallest of the native North American sandpipers and among the smallest waders

- in the world. These tame birds will walk close to humans along the shore. With a buff-brown wash on its streaked breast, it is one of the brownest and darkest of the “peeps.” The legs and feet are dull yellowish or greenish yellow rather than black like those of most small North American sandpipers.
- **SONG** High *kneet* or *knee-eet*.
 - **BEHAVIOR** Usually found in wet habitats where it obtains food by picking small animals from surface of mud and by probing mud for insects, insect larvae, and small crustaceans. Gregarious, occurring in small to large flocks. Often mixes and forages with other species of shorebirds, especially in migration and on wintering grounds. Relatively tame. Migrates at night. When flushed often rises quickly in zigzag fashion.
 - **BREEDING** Monogamous. Colonial. Male announces territory by singing continuously, often for several minutes, in display flight.
 - **NESTING** Incubation 19–23 days by both sexes (female at night; male during day; male does more). Precocial young leave nest day of hatching and feed themselves. Tended by both sexes. First flight at 14–16 days. 1 brood per year.

Flight Pattern



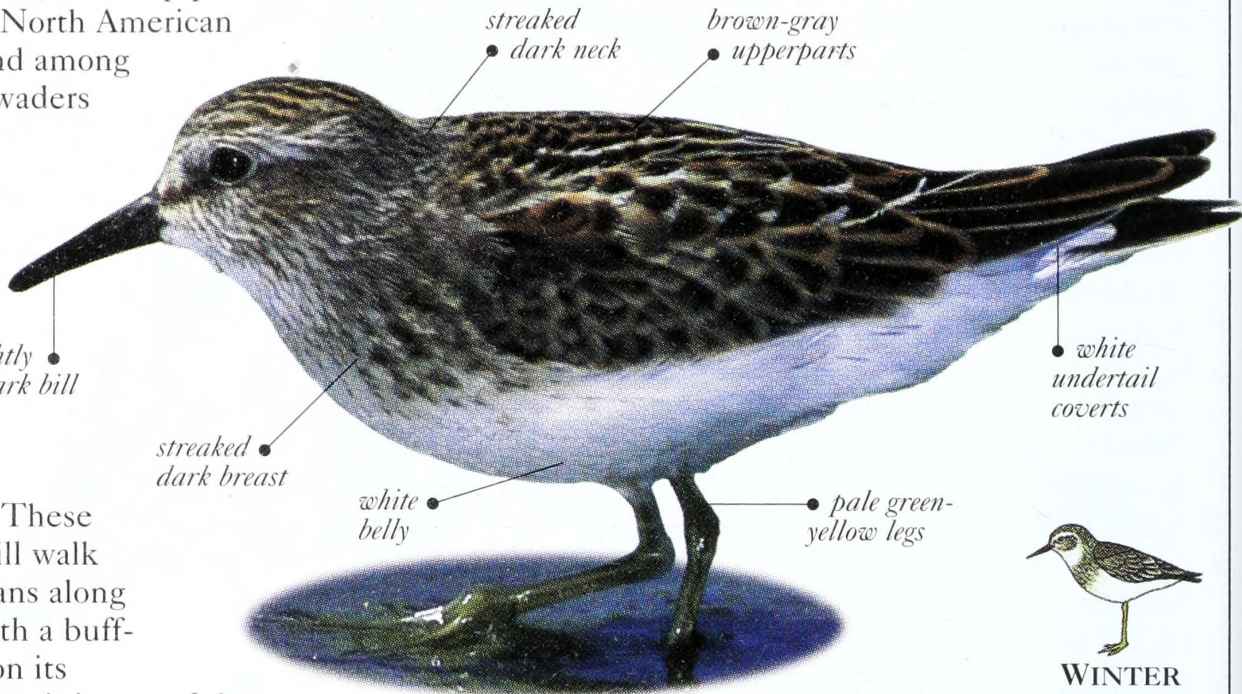
Swift direct flight with rapid wing beats. When flushed often rises quickly in zigzag fashion.

Nest Identification

Shape 	Location 
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Lined with grass and dry leaves • on small pile of grass or moss near water • male begins building; female finishes • 3–4 olive, pinkish, or buff eggs with dark brown spots; ovate pyriform, 1.2 x 0.85 inches.

Plumage Sexes similar	Habitat 	Migration Migratory	Weight 0.8 ounce
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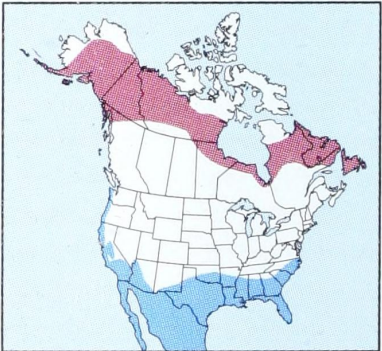
Similar Birds



SEMPIPALMATED SANDPIPER
Slightly larger; straighter bill; whiter face, throat, and chest; black legs.



WESTERN SANDPIPER
Larger; long bill is heavier at base and slightly downcurved at tip; rustier back, ear patch, and crown; black legs • in breeding plumage has more heavily streaked breast.



DATE _____ TIME _____ LOCATION _____

Family	SCOLOPACIDAE	Species	<i>Calidris fuscicollis</i>	Length	7–8 inches	Wingspan	14–16.5 inches
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WHITE-RUMPED SANDPIPER

The white rump, best seen in flight, can sometimes be glimpsed on a standing bird when it spreads its wings slightly. At rest the wing tips extend well beyond the tail. In flight the rump is a distinctive field mark shared by only one other small sandpiper, the Curlew Sandpiper (a casual to rare Eurasian species). A long-distance champion flier, this bird migrates from the Canadian Arctic to southern South America, a distance of more than eight thousand miles. It appears larger in flight than it does on the ground. Crown and back are rusty.

- **SONG** High-pitched *jeet* described as insectlike, mouselike, or batlike.
- **BEHAVIOR** Gregarious. Often wades when foraging and may immerse entire head in water. Also probes with bill in mud for food. Feeds on marine worms, insects, weed seeds, snails, and crustaceans. Often forms single-species flocks or mixes with other shorebirds.
- **BREEDING** Polygamous. Male leaves breeding ground once eggs are laid.
- **NESTING** Incubation 21–22 days by female. Precocial young leave nest soon after hatching and feed themselves. Tended by female. First flight at 16–17 days. 1 brood per year.

Flight Pattern

Strong direct flight with rapid wing beats.

Nest Identification

Shape

Location

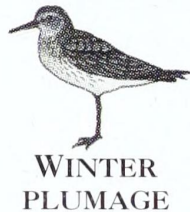
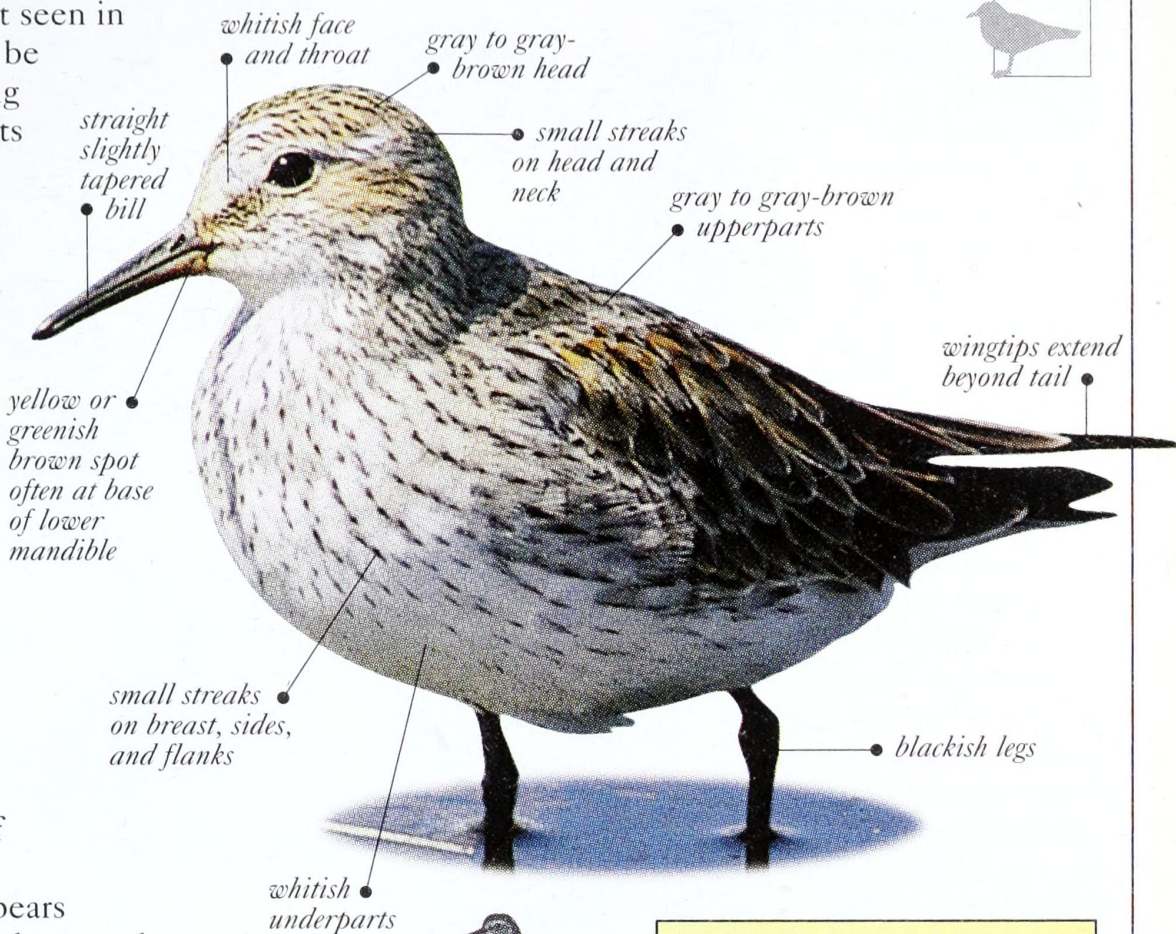
Made of lichens, moss, and leaves, especially dry willow • on pile of grass or moss near water • built by female • 3–4 olive-buff to light green eggs marked with brown; pyriform to ovate, 0.9 x 1.4 inches.

Plumage	Sexes similar	Habitat		Migration	Migratory	Weight	1.2 ounces
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DATE

TIME

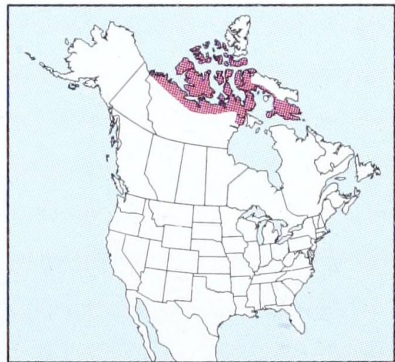
LOCATION



Similar Birds

BAIRD'S SANDPIPER
More brown overall; less-contrasting supercilium; buff edging on upperparts; buff wash on face and across streaked breast; lacks white uppertail patch.

WESTERN SANDPIPER
Smaller; shorter wings do not extend past tail; dark-centered uppertail.

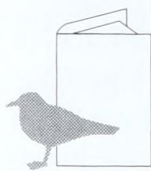
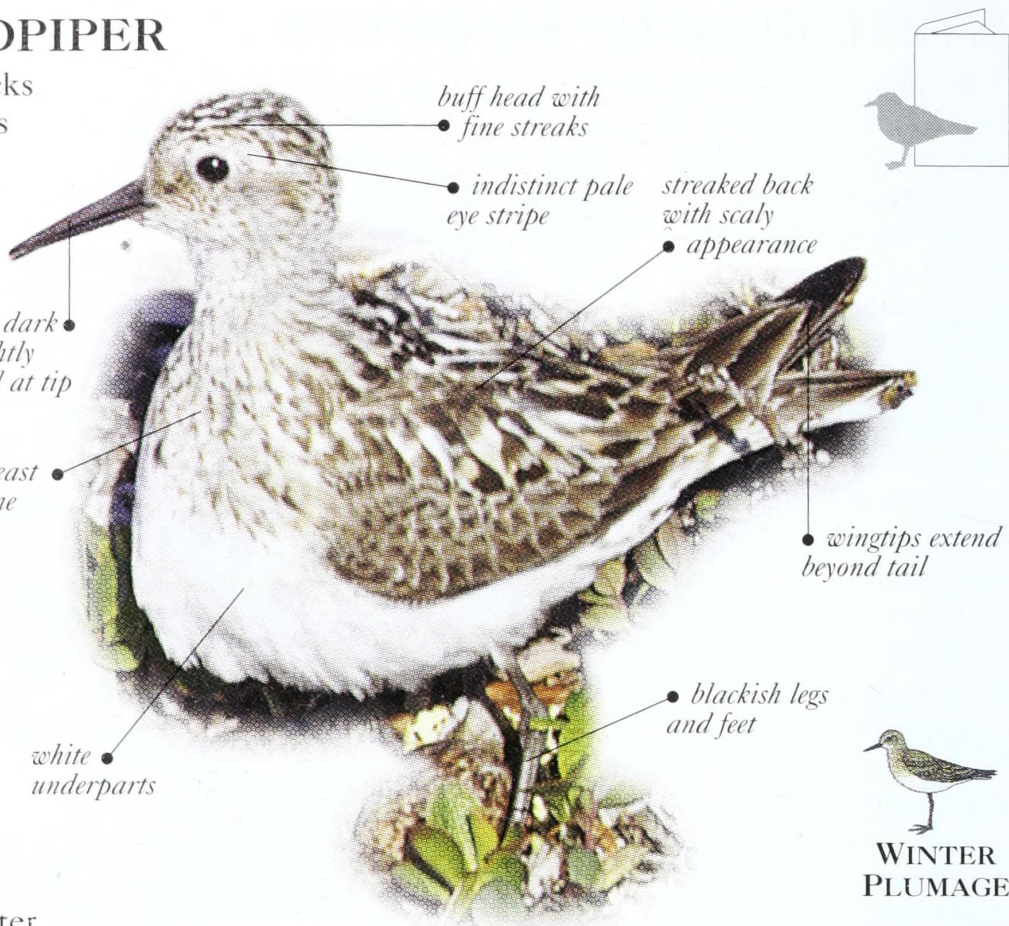


Family	SCOLOPACIDAE	Species	<i>Calidris bairdii</i>	Length	7.5 inches	Wingspan	15–16.5 inches
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BAIRD’S SANDPIPER

In early autumn large flocks of these thrush-sized birds gather on the Great Plains and fly to South America. Although they often join other small sandpipers during migration, these birds will separate from those flocks and feed by themselves. This buff sandpiper has black legs and long wings that protrude well beyond the tip of the tail when standing. Its rump and uppertail are broadly dark-centered with very narrow whitish sides. Winter plumage shows more gray and less streaking, but the combination of short bill, short legs, and long wings distinguish it.

- **SONG** Low raspy *keep* or *preet*.
- **BEHAVIOR** Fairly tame. Essentially an inland species in migration. On migration prefers to feed in higher and dryer areas than other small sandpipers. Runs across mud and through shallow water, picking up bits of food. Does not probe with bill. Eats algae, amphipods, insects, and insect larvae. Sometimes flies in mixed flocks with other shorebirds.
- **BREEDING** Monogamous. Less gregarious than most other birds in genus.
- **NESTING** Incubation 19–22 days by both sexes. Precocial young leave nest soon after hatching. Tended by both sexes.



WINTER PLUMAGE

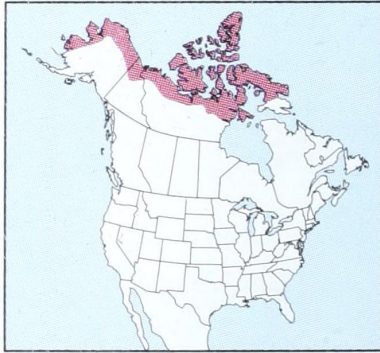
Similar Birds



WHITE-RUMPED SANDPIPER
Brighter breeding and juvenile plumage with rusty wash on crown and back • grayer nonbreeding plumage • streaking on underparts to flanks; lacks buff wash on head and breast; white tail base.



LEAST SANDPIPER
Smaller; shorter, thinner bill; dull yellow legs.



Flight Pattern

Swift direct flight with rapid wing beats.

Nest Identification

Shape Location

- First flight at 16–20 days.
1 brood per year.
- **POPULATION** Fairly common inland; uncommon on both coasts in migration.
 - **CONSERVATION** Vulnerable to habitat changes on staging areas.

No nest material • under low plants or moss-covered rocks or on small pile of grass • 4 pink to olive-buff eggs marked with dark browns; pyriform, 0.9 x 1.4 inches.

Plumage	Sexes similar	Habitat		Migration	Migratory	Weight	1.4 ounces
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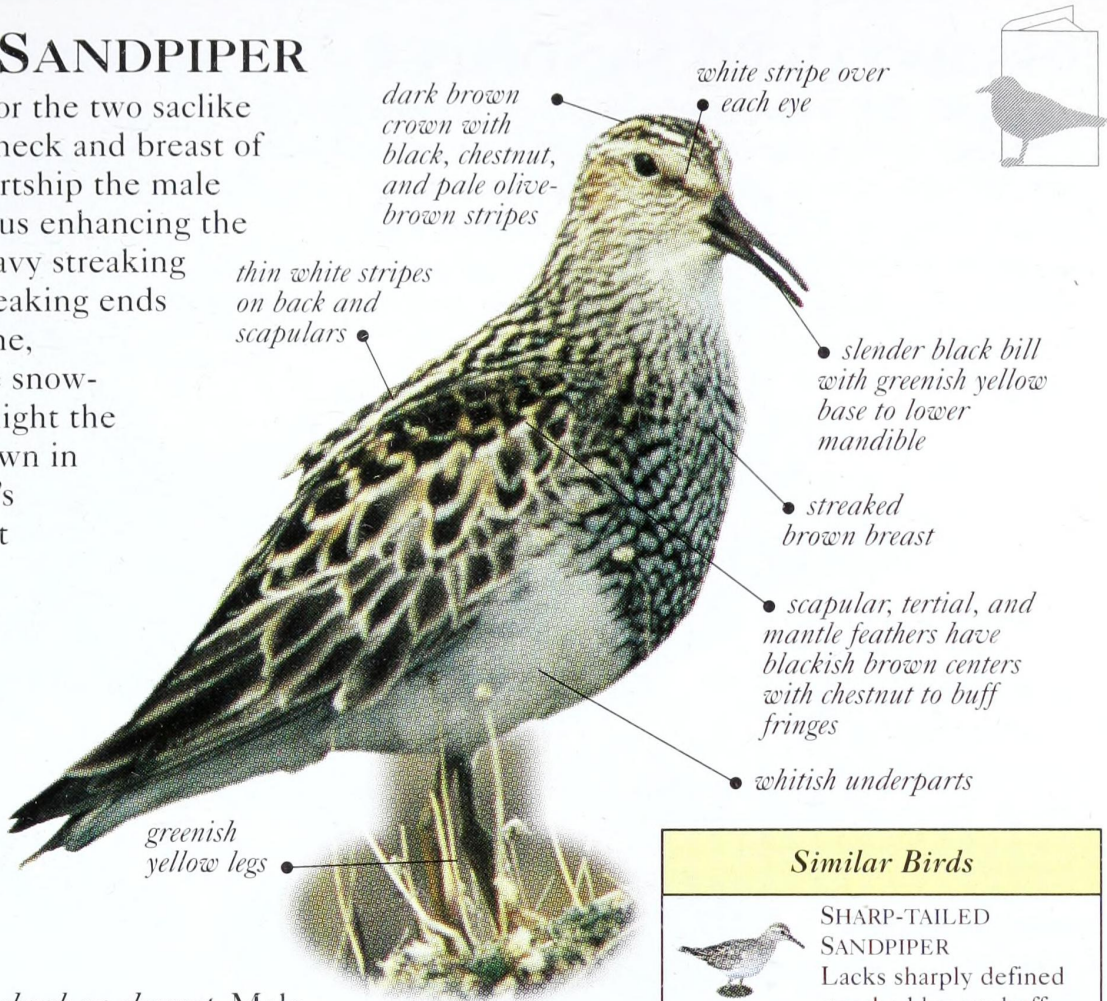
DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE	Species <i>Calidris melanotos</i>	Length 8–9 inches	Wingspan 15–16 inches
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PECTORAL SANDPIPER

This bird is named for the two saclike structures under the neck and breast of the male. During courtship the male inflates these sacs, thus enhancing the appearance of the heavy streaking on its breast. The streaking ends abruptly in a sharp line, separating it from the snow-white belly. During flight the sacs pump up and down in rhythm with the bird's hooting calls. In flight this bird shows a blackish brown rump and tail. Males and females are similar but the male has darker brown streaking on the throat and breast with white mottling. Winter plumage is pale brown overall.

- **SONG** Low reedy *churk* or *churrrt*. Male has hooting courtship call; murmuring foghornlike *khoor*, *khoor*; or loud coarse *gr*, *gr*, *gr* repeated several times per second.
- **BEHAVIOR** Forages in vegetation. Feeds by pecking and shallow probing. Eats insects and larvae, small crustaceans, spiders, seeds, and amphipods. In migration prefers meadows, marshes, pond edges, tidal flats, and mudflats. Usually in small flocks of 20–40 birds. Relatively tame. May fly short distance, then pitch back into grass.
- **BREEDING** Promiscuous. Males mate several times. Females visit territories of other males. Males leave territories prior to hatching of eggs.
- **NESTING** Incubation 19–23 days by female. Precocial young leave nest soon after hatching and feed themselves, tended by female. First flight at 18–21 days. 1 brood per year.



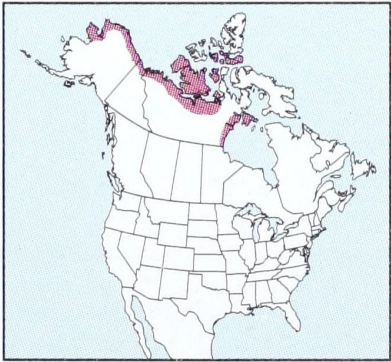
Similar Birds



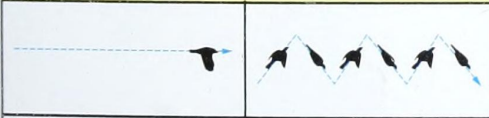
SHARP-TAILED SANDPIPER
Lacks sharply defined streaked breast; buff wash across breast • in breeding plumage has streaking on crissum, sides, and flanks • juvenile has buff-orange breast and rusty crown.



RUFF ♀
Larger; longer neck; gray-brown breast with heavy spotting and blotches; in flight shows large white ovals on uppertail and stronger wing bars.



Flight Pattern



Swift direct flight with rapid wing beats. When flushed climbs with zigzag flight.

Nest Identification

Shape  Location 

Grass and leaves • on dry ground near water • built by female • whitish to olive-buff eggs splotched with dark browns; pyriform to oval, 1.5 x 1.0 inches.

Plumage Sexes similar	Habitat   	Migration Migratory	Weight 3.5 ounces
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DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE	Species <i>Calidris acuminata</i>	Length 8.5 inches	Wingspan 17 inches
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SHARP-TAILED SANDPIPER

This native of Eurasian tundra regions is a casual to uncommon spring migrant and common autumn migrant in western Alaska, and is a rare autumn migrant along the Pacific Coast to California. These sandpipers usually travel in the company of other shorebirds. In flight it shows mostly white underwing coverts and axillaries, white lateral uppertail coverts with dark shaft streaks, and

a wedge-shaped tail. Juveniles have a white supercilium, reddish cap, and rufous lores and auriculars. All plumages show streaked undertail coverts.

- **SONG** Soft clear *pleep-pleep-trrrt*, sometimes in a twittering sequence reminiscent of a Barn Swallow’s vocalizations.
- **BEHAVIOR** Solitary or in pairs on breeding grounds. Male performs song flight with short, low-level upward flights followed by downward glides on upraised wings. Gregarious in migration and on wintering grounds, often mixing with other shorebirds. Eats many small insects and other invertebrates, including mollusks and crustaceans. On breeding grounds feeds primarily on mosquito larvae. Often feeds in grasslands and drier margins of wetlands similar to the Pectoral Sandpiper.
- **BREEDING** Polygynous; male mates with one or more females, each of which nests and incubates a set of eggs; solitary.
- **NESTING** Incubation estimated at 19–23 days by female. Precocial young leave nest soon after hatching and feed

themselves. Tended by female. First flight estimated at 18–21 days. 1 brood per year.

- **POPULATION** Casual to common migrant in Alaska. Casual to rare across the rest of North America.

Flight Pattern



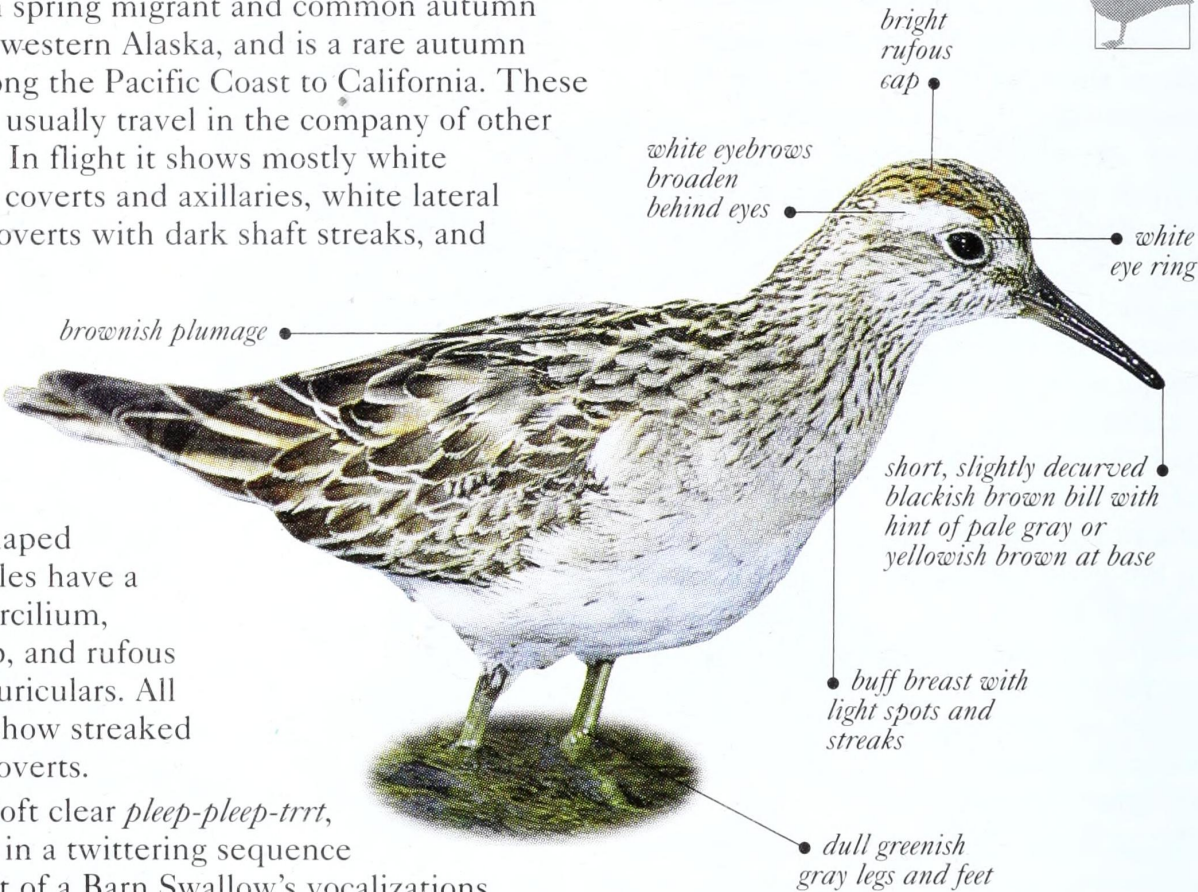
Swift direct flight with rapid wing beats.

Nest Identification

Shape 

Location 

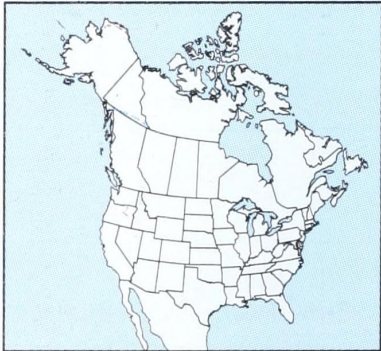
Lined with willow leaves • on moist ground sheltered by tall grasses or a bush • 4 brownish olive or greenish eggs speckled with browns, often more concentrated at one end; pyriform to oval, 1.5 x 1 inches.



Similar Birds



PECTORAL SANDPIPER
Longer neck; longer bill; dark cap; sharp contrast between brownish-streaked breast and white belly; yellow-green legs; white undertail coverts.



Plumage Sexes similar	Habitat 	Migration Migratory	Weight 2.5 ounces
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DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE	Species <i>Calidris maritima</i>	Length 9 inches	Wingspan 14–15.5 inches
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PURPLE SANDPIPER

This bird is named for a faint purplish gloss on the back and scapular feathers, visible in bright light in the hand but rarely in the field. It winters along rocky coasts, jetties, and reefs. Flocks of these stocky birds can be seen following the coast during migration. Nonbreeding plumage shows a dark slate-gray head, breast, flanks,



and upperparts, and a white eye ring and underparts. It is the darkest small shorebird on the Atlantic Coast in winter. In flight it shows a white wing stripe and white sides on the uppertail.

- **SONG** Brief *tit*, *twit*, *whit*, or *tweet*. When flocks feed and roost together sounds like a low chattering. Various wheezing and trilling calls when breeding.
- **BEHAVIOR** Tame. In winter found on seaweed-covered rocks and jetties where it pulls crustaceans out of crevices or seaweed, or picks up tiny mollusks at edges of waves. On breeding grounds performs mouselike running display to lure intruders away from nest. If flushed flies low over water.
- **BREEDING** Monogamous.
- **NESTING** Incubation 21–22 days mostly by male. Young leave nest hours after hatching and feed themselves, tended by male. First flight at 28 days. 1 brood per year.

- **POPULATION** Fairly common on breeding grounds and on the East Coast in winter; rare to casual inland and as far south as the Gulf Coast. Seem to be increasing, perhaps due to numerous jetties constructed along Atlantic Coast.

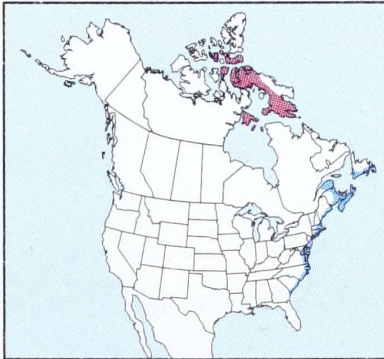


WINTER PLUMAGE

Similar Birds



ROCK SANDPIPER Western counterpart; slightly more white on outer webs of inner primaries; more extensive white on inner secondaries • in breeding plumage has black patch on belly • paler in winter • juvenile has buff-brown foreneck and upper breast; brighter coloring.



Flight Pattern

Swift direct flight on shallow clipped wing beats (somewhat like that of a Spotted Sandpiper).

Nest Identification
Shape  Location 

Lined with grass • on dry or damp tundra • male makes several scrapes; female chooses one • 3–4 olive-buff eggs blotched with brown or black; pyriform, 1.5 inches long.

Plumage Sexes similar	Habitat 	Migration Migratory	Weight 2.7 ounces
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DATE _____ TIME _____ LOCATION _____

Family	SCOLOPACIDAE	Species	<i>Calidris alpina</i>	Length	7.5–8.5 inches	Wingspan	14.5–15.75 inches
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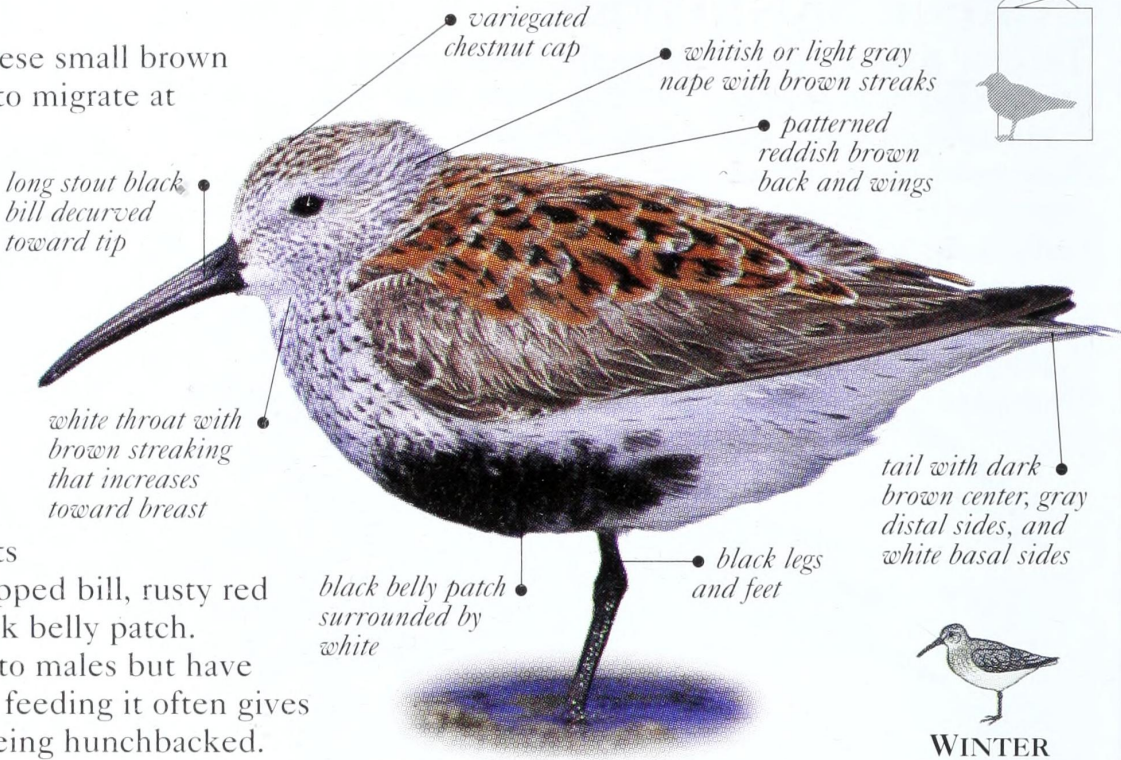
DUNLIN

Impressive fliers, these small brown sandpipers are able to migrate at speeds of more than a hundred miles per hour and travel in flocks that can be so large they look like a swarm of insects. Once known as the Red-backed Sandpiper, the breeding bird is unmistakable with its long sturdy droop-tipped bill, rusty red upperparts, and black belly patch. Females are similar to males but have brown napes. When feeding it often gives the appearance of being hunchbacked.

- **SONG** Nasal slurred reedy call of *cheezp*, *kreeep*, or *treezp*. Flocks make soft twittering noises at roost and on feeding grounds. Alarm call on breeding grounds is *quoi*.
- **BEHAVIOR** Eats insects and larvae, marine worms, small crustaceans, snails, and small fish. Wades in shallows and uses bill to probe and pick up food. Probes with rapid up-and-down stitching motion several times per second. Gregarious, often in large flocks in migration and winter. On tundra breeding grounds male makes territorial display of lifting one wing over its back when another male enters the breeding ground. Fly rapidly while performing synchronized maneuvers as a flock.
- **BREEDING** Monogamous.
- **NESTING** Incubation 20–23 days by both sexes. Precocial young leave nest day of hatching. Tended by both sexes, but primarily by male, for several days. First flight at 19–23 days. 1 brood per year.
- **POPULATION** Common on breeding grounds, both coasts, and inland to the Great Plains in migration. Rare on the Great

Plains. Common on coastal wintering grounds. Has been declining since the 1970s for undetermined reasons.

- **CONSERVATION** Vulnerable to habitat loss in staging and wintering areas.



WINTER PLUMAGE

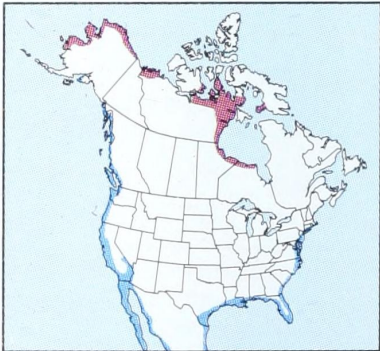
Similar Birds



ROCK SANDPIPER
Yellow-green base of bill, legs, and feet; • in breeding plumage has black chest patch • western range.



CURLEW SANDPIPER
Long decurved bill • in breeding plumage has bright rusty red underparts, neck, and head; white belly, undertail coverts, and rump patch • in winter plumage has white rump without black center line.



Flight Pattern

Swift direct flight with rapid wing beats.

Nest Identification

Shape Location

Leaves and grasses • hummock or raised dry area on wet, grass, or sedge tundra • both sexes make scrapes, but female chooses one and completes nest • 4 olive, bluish green, or buff eggs blotched with browns or gray; pyriform, 1.4 inches long.

Plumage	Sexes similar	Habitat		Migration	Migratory	Weight	1.9 ounces
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DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE

Species *Calidris ferruginea*

Length 7.5–8.5 inches

Wingspan 14.5–16.5 inches

CURLEW SANDPIPER

This Eurasian species is a rare to casual, but regular, visitor to North America, and in 1962 it was found nesting in Alaska for the first time. A long-distance flier, this bird migrates from the arctic regions to Africa and Australia.

Adults in breeding plumage are conspicuous with rich reddish chestnut head, neck, and underparts, and chestnut upperparts mottled black and white. The long bill is decurved, and the white rump, undertail coverts, and underwings are conspicuous in flight.

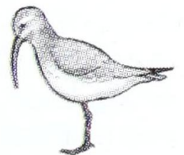
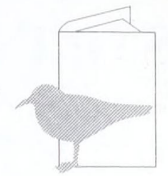
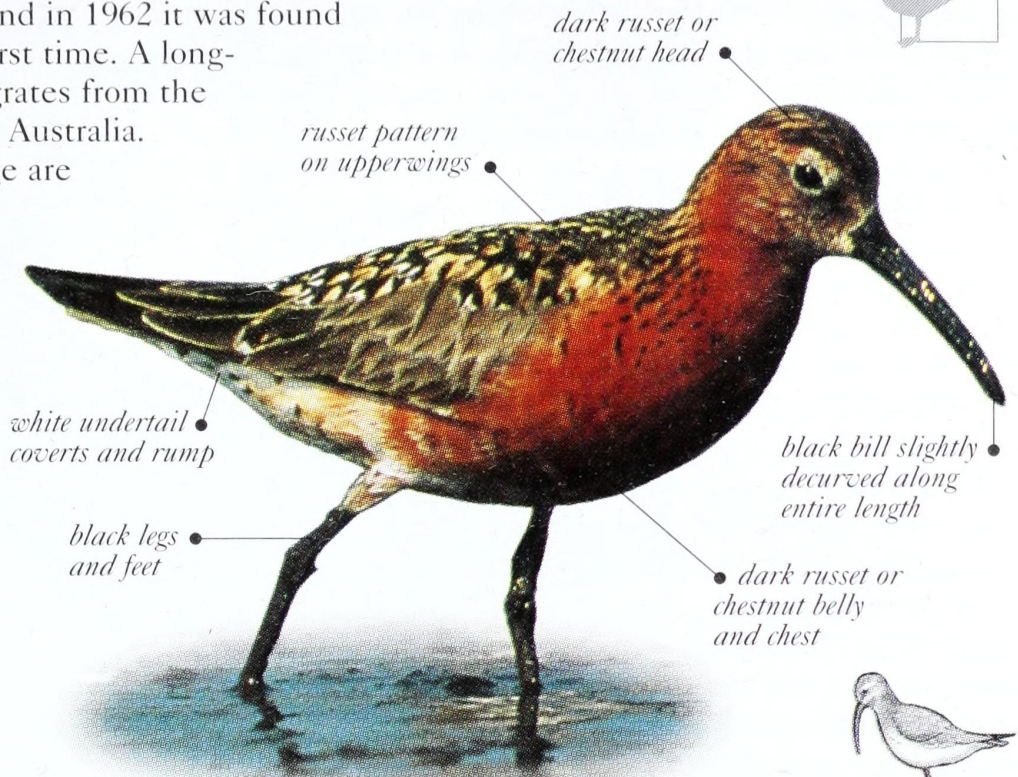
The Curlew Sandpiper often associates with the Dunlin, which it resembles, in migration.

In winter, this sandpiper displays a white chest lightly streaked with brown, a white belly, and gray upperparts.

• **SONG** Call is a pleasant liquid *chirrup* or *chirrip* in flight, or a *wick-wick-wick* in alarm. The male sings while flying on its breeding grounds.

• **BEHAVIOR** On tundra breeding grounds, feeds on insects, especially beetles. Outside breeding areas, also eats leeches, worms, crustaceans, and small mollusks. Probes rapidly with bill in mud, usually working away from others into the shallows and often wading belly deep — a behavior that is useful in picking them out of mixed feeding flocks.

• **BREEDING** Monogamous; solitary nester. Male chases female in courtship by running and flying around her in zigzag pattern, showing off his white rump. Male leaves after courtship before eggs hatch.



WINTER PLUMAGE

Similar Birds



DUNLIN

Winter plumage

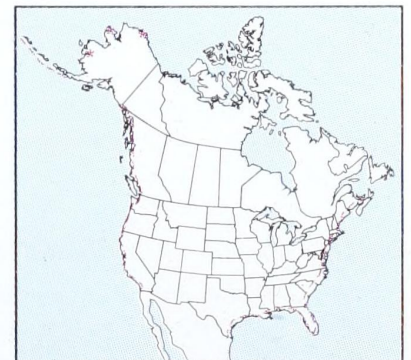
- shorter legs; more streaking on breast; bill curved only at tip; dark brown center to rump.



RED KNOT

Breeding plumage

- larger and chunkier; shorter legs; shorter, straight bill; finely barred white rump.



Flight Pattern



Swift direct flight on rapidly beating wings. Male's courtship display includes zigzag flight pattern.

• **NESTING** Incubation 21 days by female. Precocial young tended by female. 1 brood per year.

• **POPULATION** Rare to casual, but regularly appears in North America.

Nest Identification

Shape

Location

Reindeer moss, lined with moss, tender leaves, lichen, and willow leaves

• dry hummock or on ledge of moist tundra • built by both parents

• 4 cream, yellow, or olive-tinted eggs, with brown or blackish spots; pyriform, 1.4 inches long.

Plumage Sexes similar

Habitat

Migration Migratory

Weight 2.4 ounces

DATE _____ TIME _____ LOCATION _____

Family	SCOLOPACIDAE	Species	<i>Calidris himantopus</i>	Length	7.5–8.5 inches	Wingspan	15.5–17 inches
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STILT SANDPIPER

This long-legged sandpiper can be seen during migration feeding in dense flocks in shallow waters along the Atlantic coast. It is unwary and approachable, attributes that were exploited by early 19th-century market hunters to the point that it became rare and irregular in New England, where it was once common. Today this slender, long-necked, long-legged shorebird seems to be increasing in numbers and is once again common. In flight it shows a white rump. In winter, the Stilt Sandpiper displays gray upperparts and white underparts.

• **SONG** Low hoarse whistled *whu* or rattling trill *querrp*. Also brays, whines, and utters guttural trills on breeding ground.

• **BEHAVIOR** Eats mostly insects and their larvae, but also takes small crustaceans and mollusks and some plant materials, including seeds. May wade belly-deep in water and feed by thrusting head underwater while probing mud with beak in a stitching motion. Usually tame around humans; however, this bird has been known to attack when an intruder approaches the nest.

• **BREEDING** Monogamous. Male chases female in flight until he flies ahead, then male dives downward singing and raising wings over back.

• **NESTING** Incubation 19–21 days by both parents; male by day, female at night. Precocial young leave nest shortly after hatching, tended by parents for about 14 days. First flight at 17–18 days. 1 brood per year.

• **POPULATION** Common on breeding grounds and in the interior east of the Rockies during migration. Rare on West Coast, primarily in fall. Uncommon on East Coast in spring; common in fall. Rare in winter in coastal southern US.

• **CONSERVATION** Populations seem to be slowly on the increase.

Flight Pattern

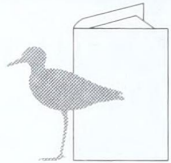


Strong powerful direct flight on long, rapidly beating wings.

Nest Identification

Shape  Location 

On small piles of sedge or low well-drained rocky ledges • pair may return to former nest site from year to year • male scrapes, but female decides which nest to use • 4 pale green to olive-green or cream eggs with brown spots; pyriform, 1.4 inches long.



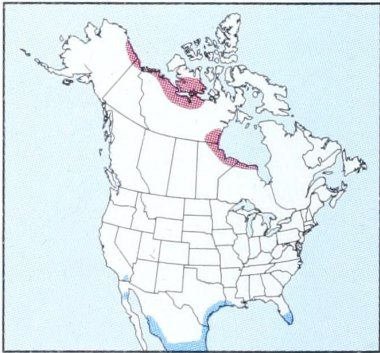
Similar Birds



CURLEW SANDPIPER
Winter plumage • black legs; beak more curved.



LESSER YELLOWLEGS
Winter plumage • larger; darker gray upperparts with extensive white speckling; dusky lores; white supralorals; white eye ring; bright yellow legs and feet; long straight black bill.



Plumage	Sexes similar	Habitat	  	Migration	Migratory	Weight	2.1 ounces
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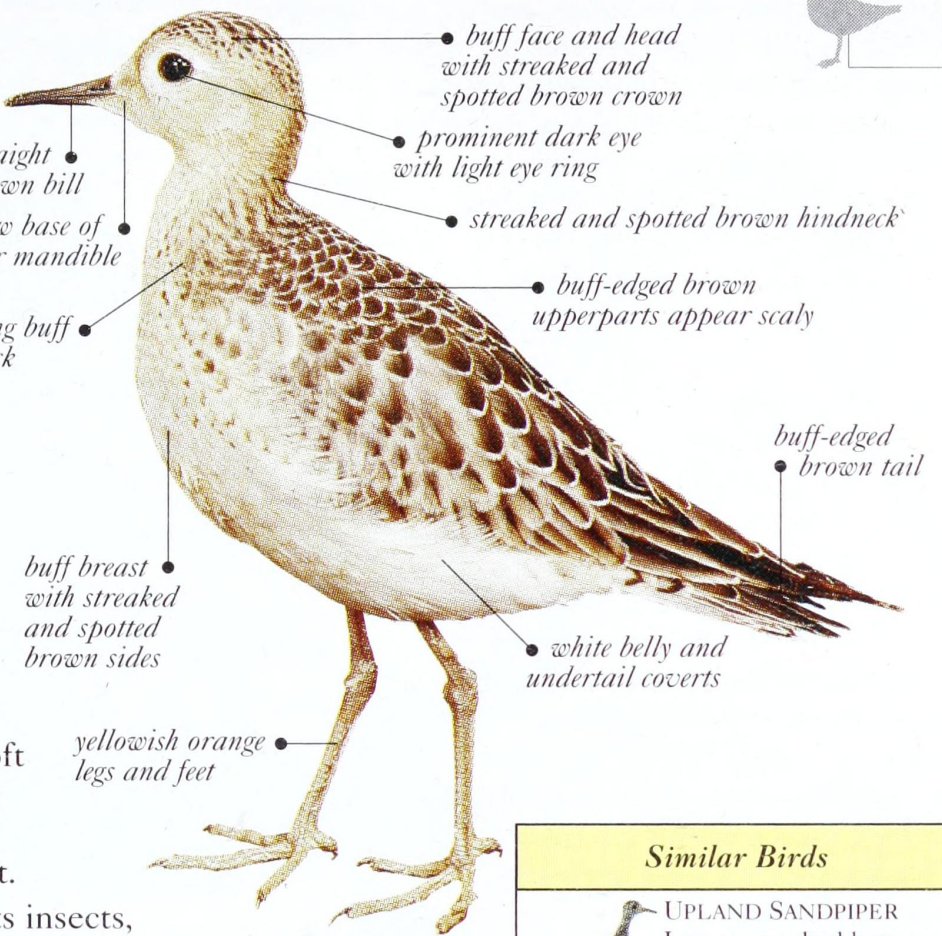
DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE	Species <i>Tryngites subruficollis</i>	Length 7.5–8.25 inches	Wingspan 16–17 inches
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BUFF-BREASTED SANDPIPER

Birders can spot this shorebird during migration when it stops to forage in the wet fields, turf farms, and rice fields of inland North America; it also favors golf courses and airports. This species generally is approachable, but when frightened it usually runs from danger rather than flying. It has a short pigeonlike bill, and an upright stance like a plover. In flight the silvery white axillars and underwing linings contrast with the buff underparts and darker back. Juveniles have more scaly upperparts.

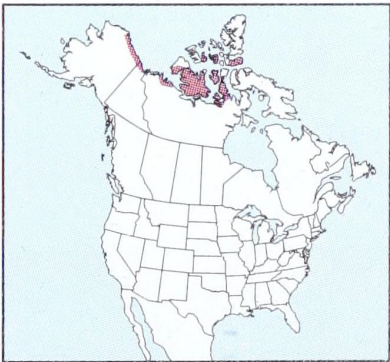
- **SONG** During migration a soft hoarse call of *pr-r-r-reet*. During display makes quick clucking sounds. Otherwise mostly silent.
- **BEHAVIOR** Gregarious. Eats insects, fly larvae and pupae, some spiders, and seeds. Prefers short dry grasslands in migration. Travels in small flocks, often mixing with other species. Rarely forages beside water.
- **BREEDING** Promiscuous. Males display together at a communal area called a lek. During the display the male flash the silvery white undersides of its wings. Successful males may mate with several females. Males leave shortly after breeding.
- **NESTING** Female incubates 19–21 days; precocial young leave nest soon after hatching. First flight at about 21 days. 1 brood per year.
- **POPULATION** Uncommon to fairly common on breeding grounds and in interior during migration. Rare to casual or uncommon in autumn migration on both coasts.



Similar Birds

UPLAND SANDPIPER
Larger; streaked brown plumage with no conspicuous marks on upperparts; streaking on breast, sides, and flanks; long, thin neck; small dovelike head; short yellow bill with black tip.

RUFF
Juvenile larger; smaller head; shorter, droopy bill; long neck; deep-bellied, hump-backed body; U-shaped white rump band
• rare to casual.



• **CONSERVATION** Once abundant, but tameness and flock density have made it vulnerable to slaughter by market hunters. Protective laws have helped population recover from near extinction.

Flight Pattern

Swift direct flight with rapid wing beats. When flushed twists and turns like a snipe as it climbs away.

Nest Identification

Shape Location

Lined with grasses or moss • on ground in pile of vegetation or in tree stump
• built by female • 4 white, buff, or olive eggs with brown blotches; pyriform, 1.3 inches long.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 2.5 ounces
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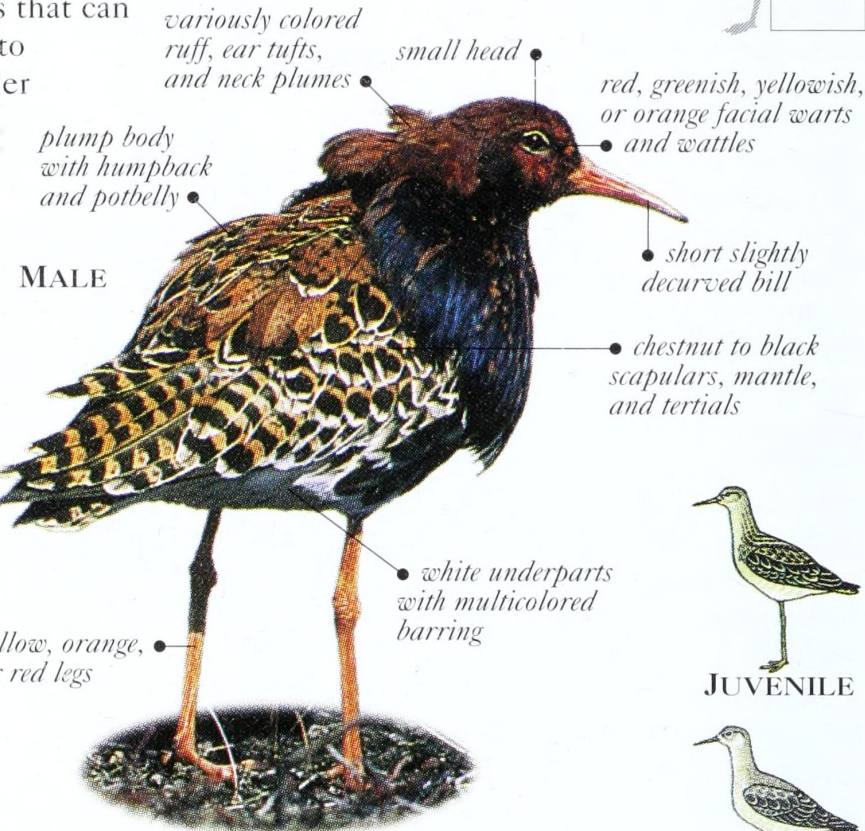
DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE	Species <i>Philomachus pugnax</i>	Length 9–12.5 inches	Wingspan 16–25 inches
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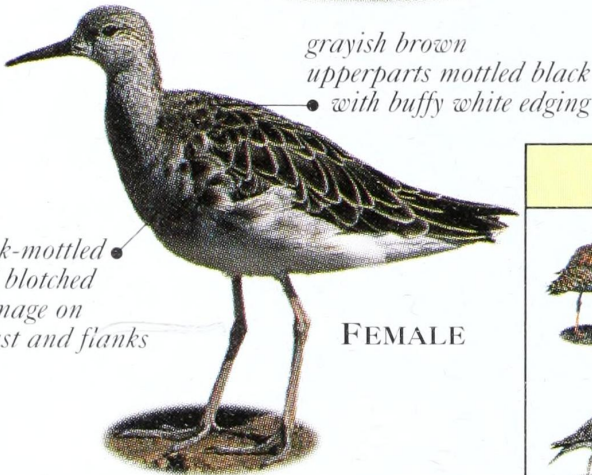
RUFF

The male Ruff in breeding plumage is unique, dressed in his frilly tufts and plumes that can range from black to rufous to white to speckled or barred. The much smaller female lacks the tufts and plumes, and the breast is heavily blotched with dark browns and blacks. In flight, females show a U-shaped white band on a dark brown rump; males show a white oval patch on each side of the dark tail and white underwings.

- **SONG** Usually silent, except during migration when birds in flocks give cries of *who-eeee*. Otherwise has a range of low grunting notes, *kooek* or *kuh-uck*.
- **BEHAVIOR** Prefers marshlands or wet meadows where it probes in mud for food or wades in water. Eats a variety of terrestrial and aquatic insects, crustaceans, and worms; some plant materials.
- **BREEDING** Polygamous. Colonial. Male performs display at lek, in which it raises ear tufts and ruffs, then bows and begins kicking and pecking other males. Females visit the lek and are chosen by one or several males. Male leaves female shortly after courtship.
- **NESTING** Incubation 20–23 days by female. Precocial young leave nest day of



MALE



FEMALE



JUVENILE



WINTER PLUMAGE

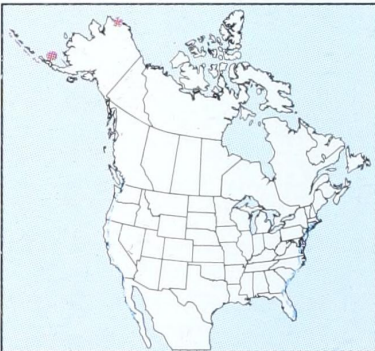
Similar Birds



PECTORAL SANDPIPER
Smaller; shorter necked; shorter yellow legs; wide dark center to rump with white sides.



UPLAND SANDPIPER
Long thin neck; small head; dark barred tail and rump.



Flight Pattern
Has low but swift direct flight with rapid wing beats.

Nest Identification
Shape Location

hatching and feed themselves but tended by female. First flight at 25–28 days. 1 brood per year by female; several by male.

- **POPULATION** Old World species. Casual to rare on both West and East Coasts, around Great Lakes, and inland.

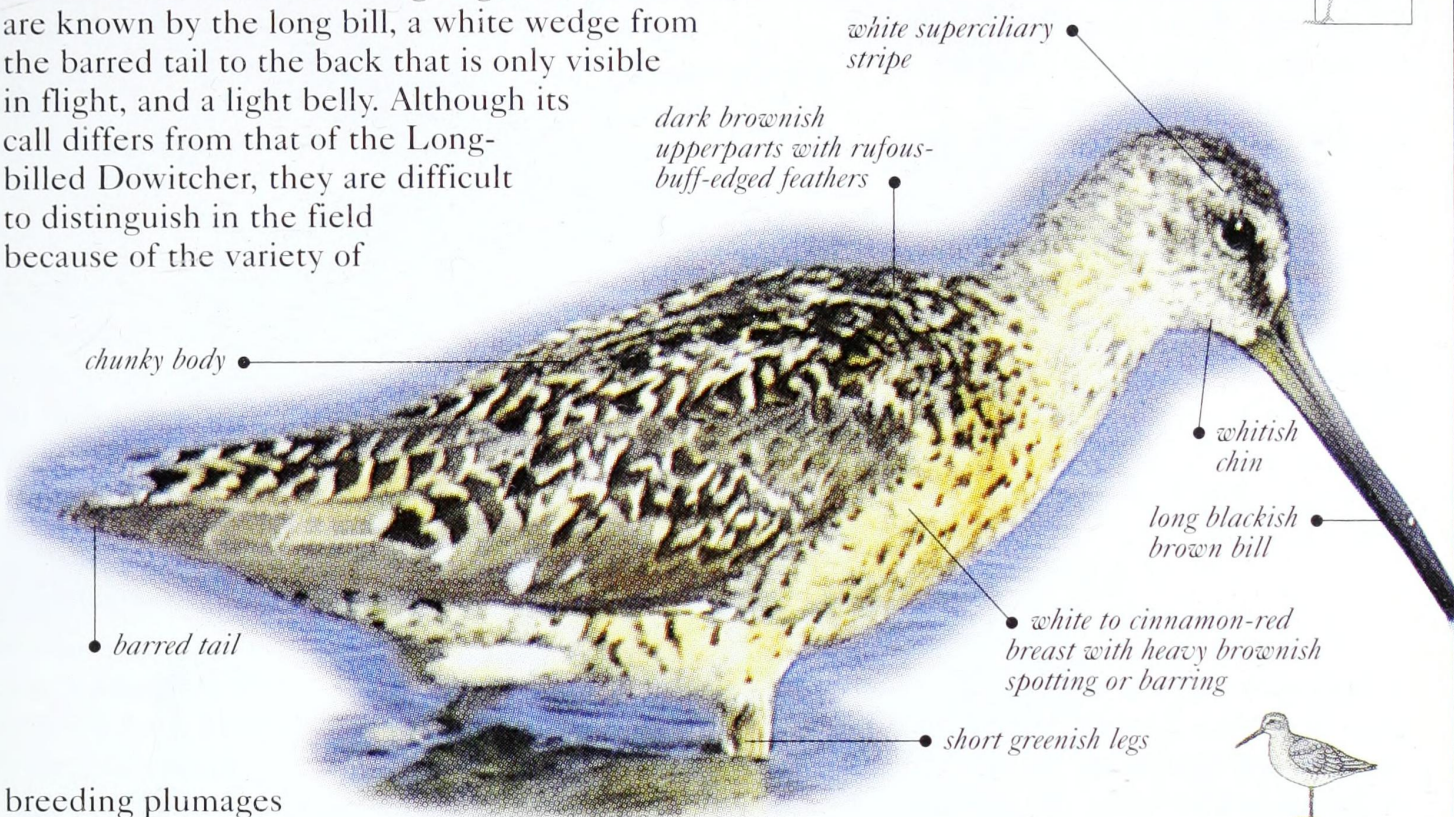
Lined with grasses and leaves • on ground or in marsh on small pile of grass or reeds, hidden in dense vegetation • built by female • 4 gray-green or buff eggs, with brown spots; pyriform, 1.7 inches long.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 6.0 ounces
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Family SCOLOPACIDAE	Species <i>Limnodromus griseus</i>	Length 10.5–12 inches	Wingspan 18–22 inches
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SHORT-BILLED DOWITCHER

This snipelike sandpiper is commonly seen in open marshes and mudflats during migration. Dowitchers are known by the long bill, a white wedge from the barred tail to the back that is only visible in flight, and a light belly. Although its call differs from that of the Long-billed Dowitcher, they are difficult to distinguish in the field because of the variety of



WINTER PLUMAGE

breeding plumages in its three races and the overlap in bill length between the two species. Juveniles are the easiest to separate by plumage from August to October. Winter plumage is gray overall. The female is similar to the male but larger.

- **SONG** Generally silent. Utters clear mellow or abrasive *chi-too-too* or *kee-you*. Also sings *tiddle-who*, especially in spring.
- **BEHAVIOR** Gregarious; feeds and roosts in large flocks and associates with other species. Eats mostly insects, also eggs of king or horseshoe crabs. Probes with fast up-and-down motion of bill. Often submerges head in water. May freeze in standing position when approached. Often flies at considerable heights.
- **BREEDING** Monogamous. Colonial. Male displays with a hovering flight song over breeding territory.

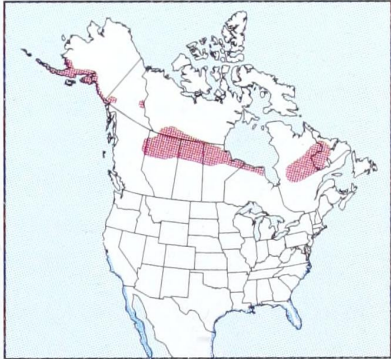
Flight Pattern

Strong swift direct flight with rapid wing beats.

Nest Identification

Shape	Location
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- **NESTING** Incubation 21 days by female, sometimes by both sexes. Precocial young leave nest soon after hatching. Tended by male but feed themselves. 1 brood per year.
- **POPULATION** Common.



Similar Birds

LONG-BILLED DOWITCHER
Slightly larger; longer legs; darker overall; darker tail with white bars narrower than dark bars; different voice

- females may have longer bill than males
- in breeding plumage lacks white underparts.

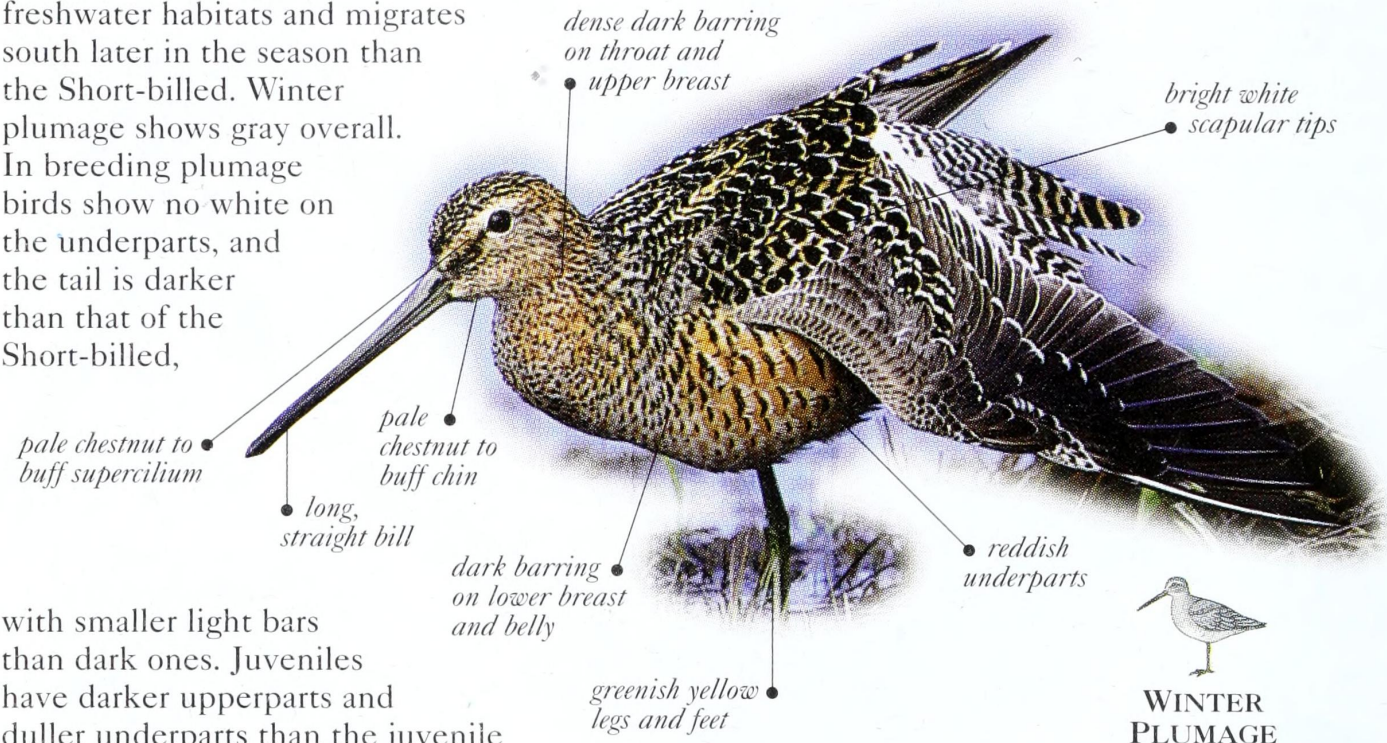
Plumage Sexes similar	Habitat	Migration Migratory	Weight 3.8 ounces
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DATE _____ TIME _____ LOCATION _____

Family	SCOLOPACIDAE	Species	<i>Limnodromus scolopaceus</i>	Length	11–12.5 inches	Wingspan	18–20 inches
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LONG-BILLED DOWITCHER

Despite its name, only the female has a slightly longer bill than its cousin, the Short-billed Dowitcher. The Long-billed prefers freshwater habitats and migrates south later in the season than the Short-billed. Winter plumage shows gray overall. In breeding plumage birds show no white on the underparts, and the tail is darker than that of the Short-billed,



with smaller light bars than dark ones. Juveniles have darker upperparts and duller underparts than the juvenile Short-billed. The scapulars have narrow dark rust edges, while the tertials have narrow, very even pale edges. On the Short-billed these feathers are broadly edged with reddish buff, and many have internal markings.

- **SONG** Fast high-pitched thin nasal *keek* or *keek-keek-keek* usually uttered as a single or triple note. Also sings *peter-wee-too*.
- **BEHAVIOR** Gregarious. When feeding rapidly probes up and down with long bill. Often puts entire head in water to probe for insects. Eats mostly insects and insect larvae but also takes crustaceans, mollusks, and plant seeds. Favors freshwater mudflats in migration and winter. Often flies high in migration.
- **BREEDING** Monogamous. Small colonies. Male sings while performing hovering display flight.
- **NESTING** Incubation 20 days by both sexes in first week,

then just by male. Precocial young leave nest day of hatching, then tended by male but feed themselves. 1 brood per year.

- **POPULATION** A bird that is common to uncommon.

WINTER PLUMAGE

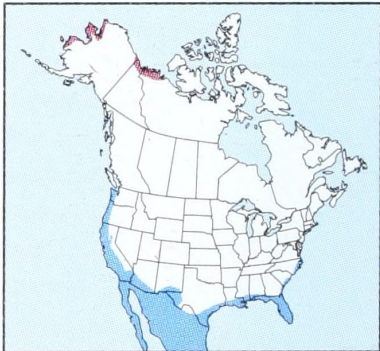
Similar Birds



SHORT-BILLED DOWITCHER
Slightly smaller; shorter legs; paler upperparts; some white in underparts; paler tail with white bars as wide or wider than dark bars; different call.



COMMON SNIPE
Long bill; boldly striped head; buff stripes on back; barred flanks; rusty red tail.



Flight Pattern

Swift direct flight with rapid wing beats.

Nest Identification

Shape Location

Lined with leaves and grass • atop small pile of grasses or moss • built by female • 4 brown to olive eggs with brown and gray blotches; pyriform, 1.6 x 1.1 inches.

Plumage	Sexes similar	Habitat		Migration	Migratory	Weight	3.5 ounces
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DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE	Species <i>Lymnocryptes minimus</i>	Length 7.25 inches	Wingspan 14 inches
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JACK SNIPE

This native of Eurasia is the smallest snipe in the world. Usually silent, the Jack Snipe can be noisy when breeding, producing a rhythmical song that sounds like the thudding of a galloping horse, a surprisingly big sound for such a tiny shorebird.

Unless flushed, this shy solitary bird rarely flies during the day. It might sit tightly in the marsh until it is almost stepped on, and only then will it flutter slowly away, staying close to the vegetation and quickly dropping back into cover. Juveniles resemble adults but have smaller and less distinct brown streaking on the undertail.

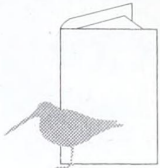
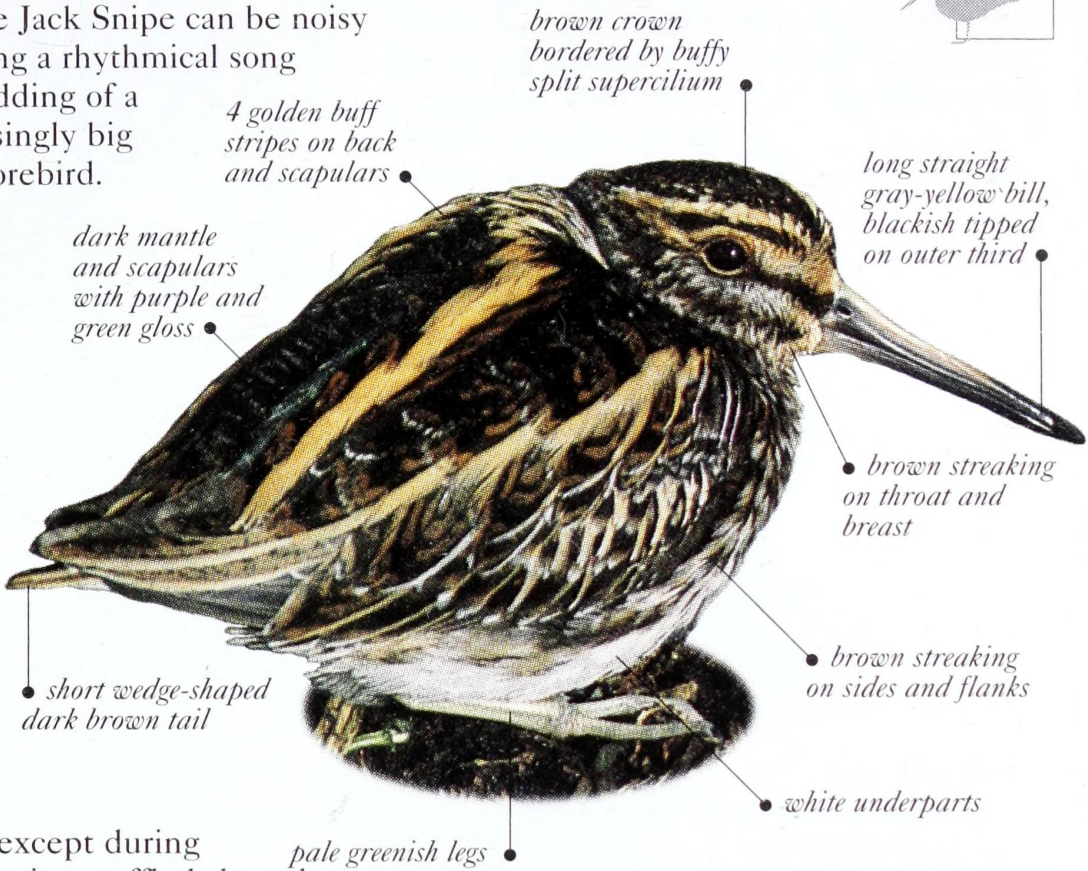
• **SONG** Usually silent except during breeding, when it has a noisy muffled slurred *ogogog/K-ogog/K*, which some say sounds like a horse's hoofs. Male also has a soft whistle.

• **BEHAVIOR** Solitary. Male gives display flight song on territory in summer. Picks up food with probing jabs of long bill into wet soil. Feeds with a repetitive up-and-down rocking motion, as if on springs. Feeds along shore, in densely vegetated shallow waters, and in wet boreal bogs. Eats mollusks, insects and their larvae, earthworms, and some seeds. Usually remains still when approached rather than flushing. Well camouflaged and difficult to see when motionless.

• **BREEDING** Monogamous. Solitary. Male performs an aerial territorial display.

• **NESTING** Incubation 24 or more days by female. Young precocial; tended by female; age at first flight unknown. 2 broods per year.

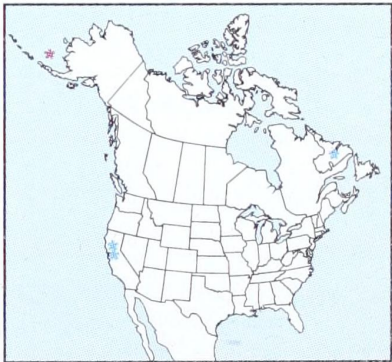
• **POPULATION** Has occurred as an accidental spring migrant in the Pribilofs and in the late fall in California and Labrador.



Similar Birds



COMMON SNIPE
Larger in size; longer bill; white in chestnut wedge-shaped tail; striped crown; streaked and barred throat, breast, sides, and flanks; flushes with rapid zigzag flight and gives *sca-ape* notes.



Flight Pattern



Weak fluttering direct flight with rapid shallow wing beats, usually of short duration and low over marsh.

Nest Identification

Shape  Location 

Some grasses and stems • on grassy tussock, hidden by dense vegetation • built by female • 4 pearl-gray or olive-brownish eggs, mottled with cinnamon-brown; pyriform, 1.5 inches long.

Plumage Sexes similar	Habitat  	Migration Migratory	Weight 1.9 ounces
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DATE _____ TIME _____ LOCATION _____

Family	SCOLOPACIDAE	Species	<i>Gallinago gallinago</i>	Length	10–11 inches	Wingspan	17–20 inches
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COMMON SNIPE

Identified by its extremely long, straight bill and longitudinal stripes on its head, this bird typically can be found in freshwater marshes and swamps and in the vicinity of lakes and rivers. It generally frequents open landscapes.

• **SONG** On breeding grounds gives *wheat-wheat-wheat-wheat*. Nonvocal, winnowing, territorial advertisement, *whoo-whoo-whoo-whoo*, produced in flight by rushing air vibrating two outermost tail feathers that are modified to produce this sound.

• **BEHAVIOR**

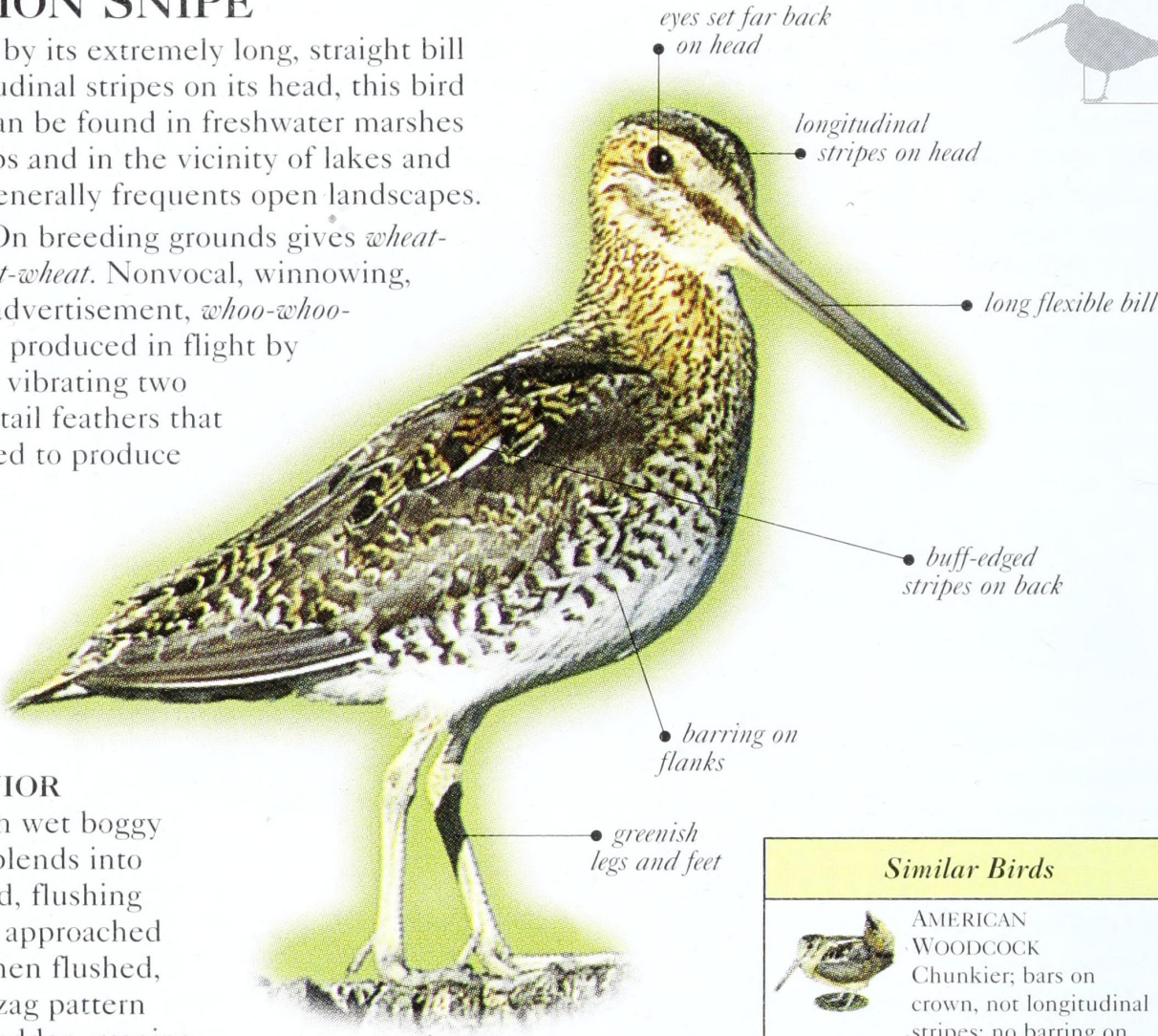
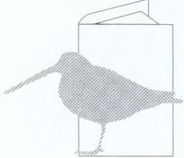
Sits tight in wet boggy areas and blends into background, flushing only when approached closely. When flushed, flies in zigzag pattern emitting sudden, rasping *skaipe* vocalization. Feeds principally on insects, insect larvae, and earthworms taken from mud by probing with its long bill.

• **BREEDING** Solitary nester.

• **NESTING** Incubation 18–20 days by female. Precocial young leave nest within hours of hatching. First flight at 14–20 days. 1 brood per year.

• **POPULATION** Significant decline in US from 1980 to 1995. Breeds in northern US, Canada, and Eurasia. Winters as far south as northern South America and central Africa.

• **CONSERVATION** Lands have been managed primarily to increase populations for hunting. It is highly questionable whether the Common Snipe should retain its status as a game bird species.



Similar Birds



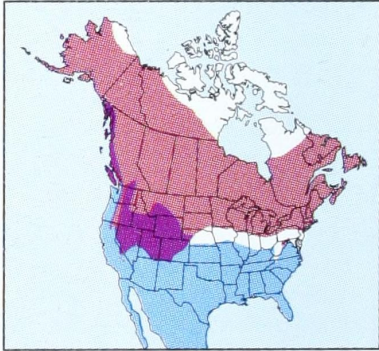
AMERICAN WOODCOCK
Chunkier; bars on crown, not longitudinal stripes; no barring on flanks; cinnamon-buff underparts, including wing linings.



LONG-BILLED DOWITCHER
SHORT-BILLED DOWITCHER



Lack head striping; barring or spotting on longer neck.



Flight Pattern

Zigzag flight on takeoff followed by direct flight with rapid wing beats.

Nest Identification

Shape Location

Scrape • 2–4 olive-brown or pale olive-brown eggs covered with mostly brown and black dark spots and blotches, slightly glossy finish; 1.3 x 1.1 inches.

Plumage	Sexes similar	Habitat		Migration	Migratory	Weight	4.5 ounces
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DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE	Species <i>Scolopax rusticola</i>	Length 13.5 inches	Wingspan 22 inches
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EURASIAN WOODCOCK

The plumage of this rare visitor to North America serves as camouflage in the European and Asian forests where it lives. Its long flexible bill with a sensitive tip helps it probe for food in the cold ground. Females have been reported to move chicks away from intruders by carrying them in flight. The pale chestnut-brown rump shows in flight.

• **SONG** Generally silent, except on breeding territory. During breeding, male gives accelerating series of low, barely audible grunts, *kwoor-kwoor-kwo-ro* or *ook-ook-tssee*, followed by sharp loud *pee-tzz*, as he performs courtship flights at dawn and dusk low over the treetops. When flushed has grating repetitive call of *shraaap*.

• **BEHAVIOR** Solitary. Nocturnal. Probes for worms by inserting bill deep in soil. Eats mostly earthworms but also slugs and insects; some plant materials. When feeding, walks deliberately with constant rocking motion of body.

• **BREEDING** Polygamous; loose colonies. Male performs courtship display at dusk and in early morning. Males circle above treetops for 20 minutes at a time, calling to attract females into territory for mating.

• **NESTING** Incubation 22 days by female. Precocial young leave nest within 1–2 days of hatching to feed themselves, tended by female. First flight at 15–20 days. 1 brood per year.

• **POPULATION** Rare to accidental. Recorded in northeast Canada, northeast United States, Virginia, and Alabama, mostly in 19th century. No recent records.

• **CONSERVATION** Still hunted throughout most of native range in Eurasia.



Flight Pattern

Swift direct flight with rapid wing beats. When flushed, zigzags away.

Nest Identification

Shape Location

Lined with leaves and grasses • a grassy tussock, sheltered by bush, tree trunk, or stump • built by female • 4 ocherous eggs, spotted with brownish red; oval, 1.7 inches long.

Similar Birds

AMERICAN WOODCOCK
Smaller in size; more distinctive stripes down back; more narrow outer primaries; shorter and more rounded wings; lacks barring on underparts and underwings.



Plumage Sexes similar	Habitat	Migration Migratory	Weight 10.8 ounces
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DATE _____ TIME _____ LOCATION _____

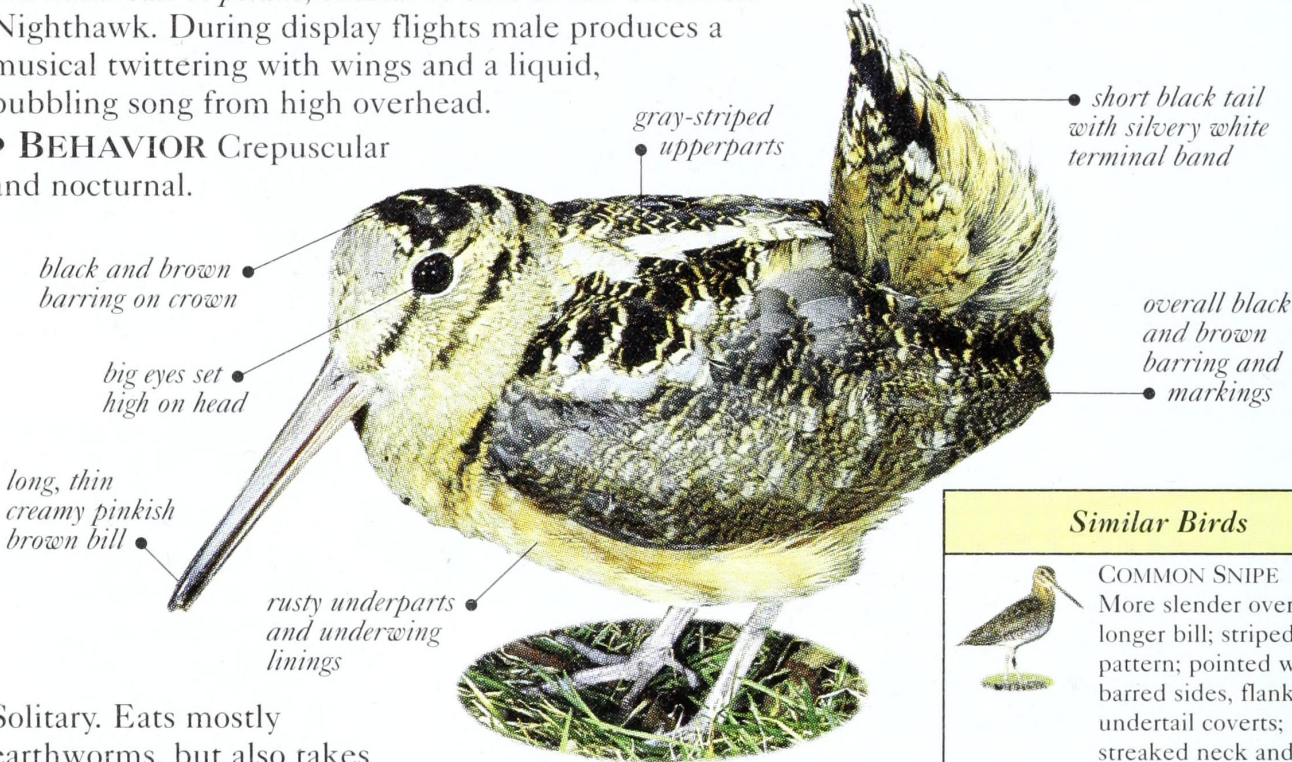
Family SCOLOPACIDAE	Species <i>Scolopax minor</i>	Length 10.5–11 inches	Wingspan 18 inches
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AMERICAN WOODCOCK

The long bill of this upland shorebird is sensitive and flexible, allowing it to feel for worms in deep soil. Woodcocks are rarely seen during the day unless flushed and escaping straightaway in flight on twittering rounded wings. Chunky, short-necked, and short-legged, its plumage matches the dead leaves of the forest floor and old fields where it roosts by day.

• **SONG** Generally silent. In spring, male on display ground has nasal call of *peeant*, similar to that of the Common Nighthawk. During display flights male produces a musical twittering with wings and a liquid, bubbling song from high overhead.

• **BEHAVIOR** Crepuscular and nocturnal.



Solitary. Eats mostly earthworms, but also takes slugs, insects, and some seeds and berries. Before probing into soil with bill, often stamps foot on ground, causing earthworms to move. During feeding, walks slowly with a back and forth rocking motion.

• **BREEDING** Polygamous; loose colonies. Male has complex courtship flight: he flies from ground, circling as high as 300 feet, hovers, chirps, and glides earthward in a series of zigzags.

• **NESTING** Incubation 20–21 days by female. Precocial young leave nest 1–2 days after hatching to feed themselves, tended by female. First flight at 14 days; independent at 42–56 days.

1 brood per year.

• **POPULATION** Fairly common. Casual to eastern Colorado and eastern New Mexico; accidental to southeastern California.

• **CONSERVATION** Hunted and managed as a game bird.

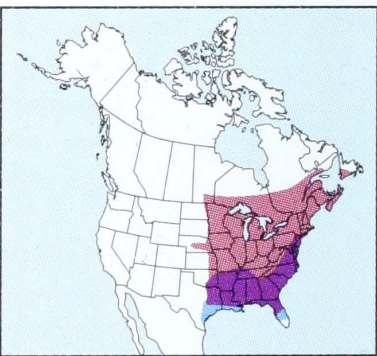
Similar Birds



COMMON SNIPE
More slender overall; longer bill; striped head pattern; pointed wings; barred sides, flanks, and undertail coverts; streaked neck and upper breast; buffy white stripes on back; reddish tail with white terminal band; longer greenish legs and feet.



EURASIAN WOODCOCK
Accidental — no recent records • much larger; brown- and pale buff-barred underparts; more pointed, longer wings.



Flight Pattern

Most often has swift flight; when flushed, flies low for short distance before dropping back into cover.

Nest Identification

Shape Location

Lined with twigs and dried leaves • on ground, hidden in tall grasses, weeds, or near stump of tree • built by female • 4 buff or cinnamon eggs, with gray, purple, and brown spots; oval, 1.5 x 1.1 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 6.2 ounces
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DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE	Species <i>Phalaropus tricolor</i>	Length 8–9.5 inches	Wingspan 14.5–16 inches
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WILSON'S PHALAROPE

Phalaropes have devised a terrific way to get plankton and other food to the water's surface for harvest. They spin like tops – as fast as 60 times per minute – creating small whirlpools that pull food to the surface where they can pick it up with their long slender bills. In flight, wings lack striping, and uppertail coverts are white.

This is the only phalarope confined to inland habitats and restricted to the Western Hemisphere.

• **SONG** Generally silent. Breeding call of *nya* sounds like a toy whistle. Occasional flight call a low croaking *aangh*.

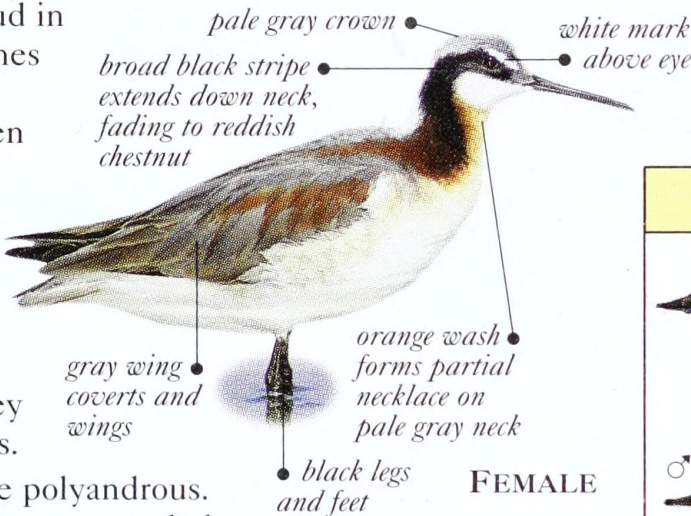
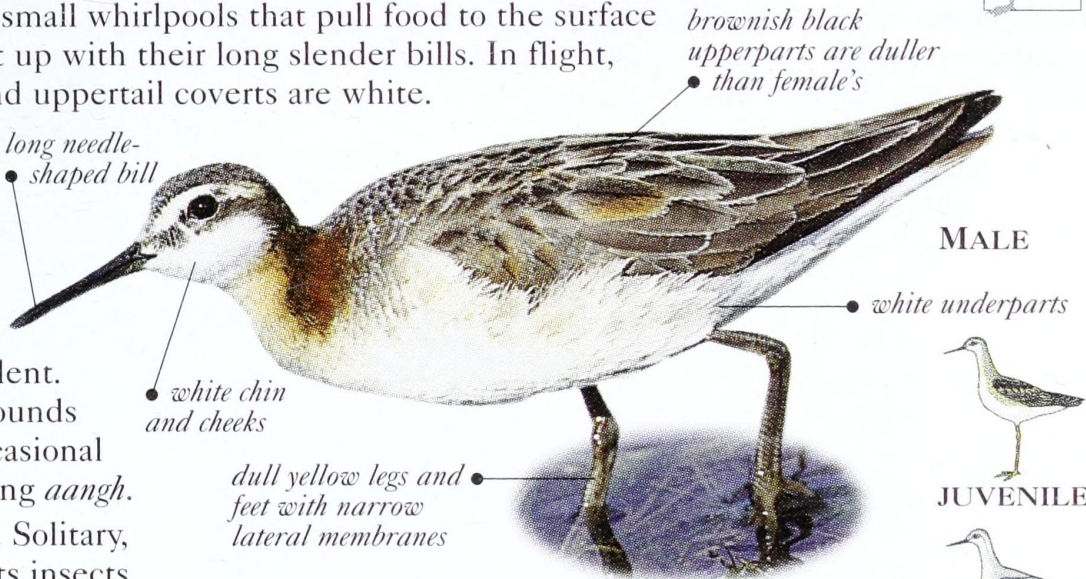
• **BEHAVIOR** Tame. Solitary, pairs, small flocks. Eats insects, larvae, crustaceans, marsh plant seeds. Probes mud in shallow water, sometimes with head submerged. Spins and dabbles. Seen following shoveler ducks to pick stirred-up prey from surface. Sometimes snags insects from air. Often walks in vegetation, picking prey from ground and plants.

• **BREEDING** May be polyandrous. Loose colonies. Female courts male by swimming beside him and chasing off other females; eventually male makes sexual advances. Male develops incubation patches.

• **NESTING** Incubation 18–21 days by male. Precocial young leave nest day of hatching. Tended by male but feed themselves. First flight at 16–18 days. 1 or more broods per year.

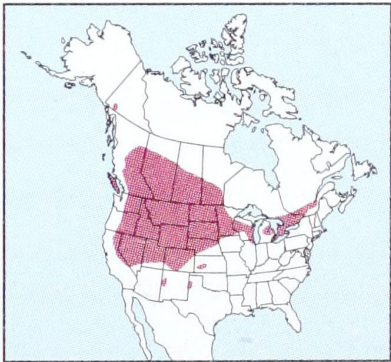
• **POPULATION** Abundant to common in the West, although declining slightly. Uncommon to rare or casual in the East.

• **CONSERVATION** Drainage of marshes has caused loss of nesting areas; protection of such areas is needed.



Similar Birds

	LESSER YELLOWLEGS Larger; darker upperparts; streaked breast and belly; lightly barred tail; canary-yellow legs.
	RED-NECKED PHALAROPE Smaller; shorter bill; black ear patch even in winter plumage; strongly streaked upperparts; dark gray rump; white wing stripe.



Flight Pattern

Swift direct flight with rapid wing beats.

Nest Identification

Shape Location

Lined with grass • female may start, but built mostly by male • 4 buff eggs with brown blotches; pyriform, 1.3 inches long.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 2.4 ounces
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DATE _____ TIME _____ LOCATION _____

Family	SCOLOPACIDAE	Species	<i>Phalaropus lobatus</i>	Length	7.75–8 inches	Wingspan	14–15 inches
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RED-NECKED PHALAROPE

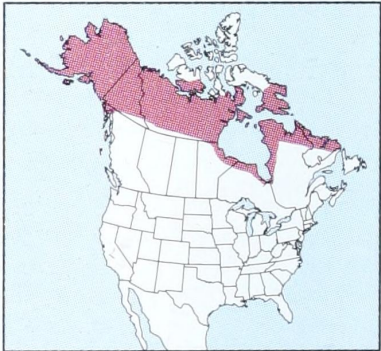
Formerly called the Northern Phalarope, this bird is the smallest of the phalaropes, as well as the most abundant and widely distributed. Like all birds in its genus, the male is the only gender with brood patches with which to incubate the clutch. Male and female have similar plumage, but male looks more washed-out. White wing bars show in flight. In winter plumage both sexes have heavily streaked gray upperparts, whitish underparts, a black line through the eyes, and dark legs and feet.

- **SONG** Flight call is soft *clipp* or *twit*, *tirric* or *twik*. Utters various insectlike alarm calls on breeding grounds.
- **BEHAVIOR** Very tame. Gregarious in migration and winter; also pelagic in winter. Turns in circles while feeding in shallow water and picks up zooplankton stirred up to surface. Turns over rocks, picks larvae off water. Eats brine shrimp, aquatic vegetation, insect larvae, mollusks, and plankton. Female initiates courtship, selects scrape, and deserts male as soon as incubation begins; sometimes mates with a second male.
- **BREEDING** Monogamous, or female serially polyandrous (at least 10 percent). Solitary or in pairs.
- **NESTING** Incubation 17–21 days by male. Precocial young leave nest soon after hatching and are able to swim immediately. Tended by male but feed themselves. First flight at 20–21 days. 1 brood by male and 1–2 broods by female per year.
- **POPULATION** Abundant. Common off West Coast and inland in the West during migration; rare inland in the Midwest and the East; uncommon off Atlantic Coast; fairly common offshore in Maritimes and New England.



Similar Birds

- ♂ **RED PHALAROPE** Larger; longer wings • thicker yellowish bill in breeding season • in winter has thicker blackish bill; more uniform pale gray upperparts without whitish streaking.



Flight Pattern

Swift swallowlike flight with rapid wing beats and quick movements and turns.

Nest Identification

Shape Location

the West during migration; rare inland in the Midwest and the East; uncommon off Atlantic Coast; fairly common offshore in Maritimes and New England.

• **CONSERVATION** Vulnerable to marine pollution and oil spills.

Lined with grasses, dried leaves, and stalks • in tussock of grasses or sunken in mosses, often sheltered by vegetation • built by male, often in company of female • 3–4 buff-olive eggs spotted with brown; oval to pyriform, 1.2 x 0.8 inches.

Plumage	Sexes differ	Habitat		Migration	Migratory	Weight	1.2 ounces
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DATE _____ TIME _____ LOCATION _____

Family SCOLOPACIDAE	Species <i>Phalaropus fulicaria</i>	Length 8–9 inches	Wingspan 14–16 inches
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RED PHALAROPE

Of all phalaropes, the Red is most pelagic, nests farthest north, and migrates farthest south. It breeds well north of the Arctic Circle and winters at sea off both Atlantic and Pacific Coasts. Its bill is shorter and thicker than that of other phalaropes. In flight it shows a white wing stripe, a uniformly gray back (in winter), and brownish legs and feet.

• **SONG** Bell-like *clink-clink*. Also a shrieking shrill *wit-wit* and *tink* or *tsik*.

• **BEHAVIOR** Tame. Solitary or in small flocks; at sea occasionally in very large flocks. Pelagic in winter. Swims readily. Wades into water to feed; finds food on surface and in shallow water. Swims and spins often, picking up planktonic food particles with its bill from the surface. Eats small insects, fish, and aquatic invertebrates.

• **BREEDING** Female polyandrous; male promiscuous. Semicolonial. Female selects territory, leaves area shortly after laying eggs; and sometimes mates again.

• **NESTING** Incubation 18–20 days by male. Precocial young leave nest soon after hatching. Tended by male but feed themselves. First flight at 16–20 days. 1 brood per year by male and 2 broods by female.

• **POPULATION** Abundant on breeding grounds. In winter and migration fairly common off the West Coast; uncommon off the East Coast. Rare inland.

• **CONSERVATION** Accidents occur during migration, such as collisions with lighthouses. Storms at sea can blow birds inland. Vulnerable to oil spills.

black wing tips

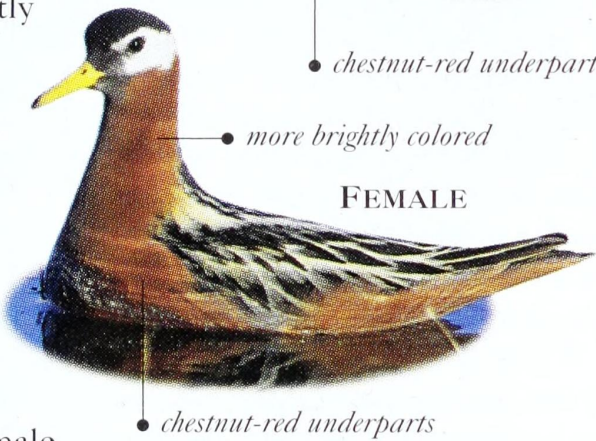


MALE



JUVENILE

WINTER PLUMAGE

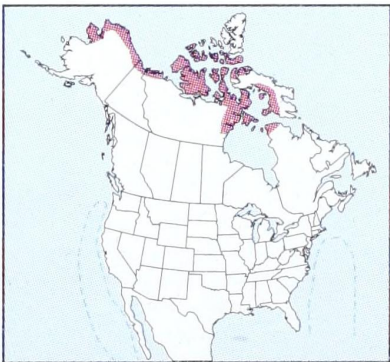


FEMALE

Similar Birds



RED-NECKED PHALAROPE
Thinner, needlelike bill; smaller • in winter plumage is darker with heavily striped back; blacker crown; more contrasting wing stripe.



Flight Pattern



Swift direct flight with rapid wing beats.

Nest Identification

Shape  Location 

Domed with grass • lined with grasses and other fine materials • on ground near water • built by male • 3–4 olive-green eggs blotched with black or brown; oval to pyriform, 1.2 x 0.9 inches.

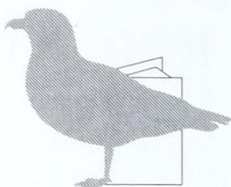
Plumage Sexes differ	Habitat 	Migration Migratory	Weight 1.8 ounces
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DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Stercorarius skua</i>	Length 20–22 inches	Wingspan 54–59 inches
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GREAT SKUA

Sometimes called a sea hawk because its habits resemble those of inland raptors, this skua is known to steal food from other seabirds. A native of Iceland and northern Europe, it can be seen off the north Atlantic Coast year-round. About the size of a stocky Herring Gull, this bird will attack gannets. It likes to tend large fishing boats where it may take scraps, throwbacks, and garbage. A dark chunky heavy-looking bird with wide wings that show patches of white at the base of the primaries, it looks somewhat hunchbacked in flight. It displays pale and dark color phases.



heavy blackish gray bill with dark tip

brownish overall, streaked with gold and reddish brown

broad white markings on upper primaries

dark brown underwing

cinnamon- and buff-marked chestnut-brown underparts

short blackish brown wedge-shaped tail

• **SONG**
Calls *skooo-aa*, *skoooo-aa*. When defending nest, cries *tuk-tuk-tuk*.

• **BEHAVIOR**
Spends much time at sea. Eats fishes, small seabirds, ducks, small mammals, carrion, and refuse. Steals fish from other birds by attacking them from the air and causing them to release or disgorge prey. Usually initiates pursuit-chases with low-level attack, harassing birds as large as gannets by chasing them and grabbing their tail or wing until they disgorge their catch, which the skua often catches before it hits the water.

• **BREEDING** Usually monogamous, but have been known to be polygamous; small colonies. Raises wings in display flight.

• **NESTING** Incubation 26–29 days by both sexes, but mostly by female. Semiprecocial young stay in nest 42–49 days, fed by both parents. First flight at about 60 days, but young stay near nest

DARK MORPH

PALE MORPH

Similar Birds



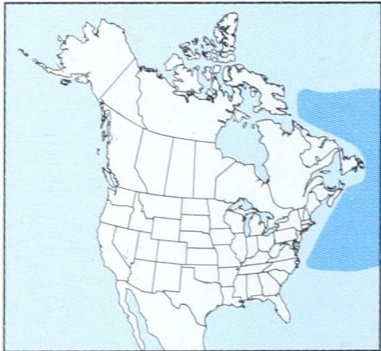
POMARINE, PARASITIC, AND LONG-TAILED JAEGERS



Dark morphs • smaller; not barrel chested; may have tail points (unless molted); narrower wings; less striking wing patch.



SOUTH POLAR SKUA
Lacks reddish tones and streaking on upperparts • “blond phase” much paler with less streaking and much paler head.



Flight Pattern



Strong purposeful direct flight with shallow constant wing beats; hugs wave contours or flies up to 150 feet high.

Nest Identification

Shape  Location 

for 21–28 more days, tended by both parents. 1 brood per year.

• **POPULATION** Uncommon of the north and middle Atlantic Coast south to North Carolina from November to March.

Lined with leaves, moss, and grass • on rocky ground at base of bank or slope • built by both sexes • 1–3 yellow to green or brown eggs, marked with purple and brown splotches; short elliptical, 2.6 inches long.

Plumage Sexes similar	Habitat  	Migration Migratory	Weight 14.6 ounces
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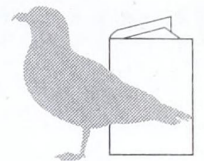
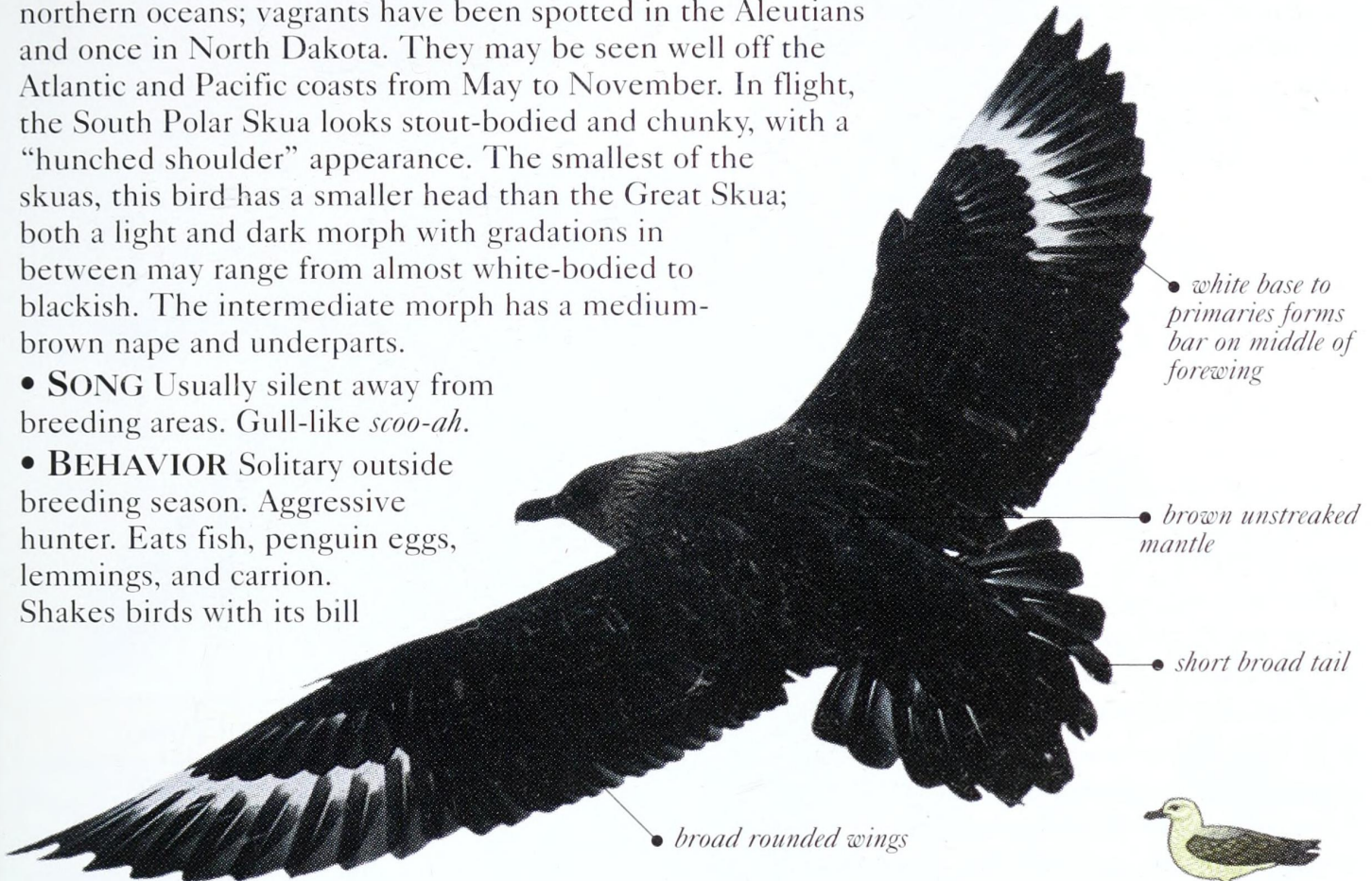
DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Stercorarius maccormicki</i>	Length 21 inches	Wingspan 52 inches
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SOUTH POLAR SKUA

Rarely seen from shore, this skua spends much of its time at sea, scavenging around fishing boats and chasing gulls and shearwaters. It nests along the coast of Antarctica but winters (our summer) in northern oceans; vagrants have been spotted in the Aleutians and once in North Dakota. They may be seen well off the Atlantic and Pacific coasts from May to November. In flight, the South Polar Skua looks stout-bodied and chunky, with a “hunched shoulder” appearance. The smallest of the skuas, this bird has a smaller head than the Great Skua; both a light and dark morph with gradations in between may range from almost white-bodied to blackish. The intermediate morph has a medium-brown nape and underparts.

- **SONG** Usually silent away from breeding areas. Gull-like *scoo-ah*.
- **BEHAVIOR** Solitary outside breeding season. Aggressive hunter. Eats fish, penguin eggs, lemmings, and carrion. Shakes birds with its bill



• white base to primaries forms bar on middle of forewing

• brown unstreaked mantle

• short broad tail

• broad rounded wings



PALE MORPH

to make them let go of their prey then seizes it. Dives into water from air to catch fish. Tends fishing trawlers. Defensive at nest; often flies straight at the head of a human intruder.

- **BREEDING** Monogamous; small colonies. Male feeds female during courtship.
- **NESTING** Incubation 24–34 days by both parents; female does more. Young semiprecocial; one nestling may be forced by its sibling to leave nest shortly after hatching; usually dies. The remaining one is fed by both parents by regurgitation.

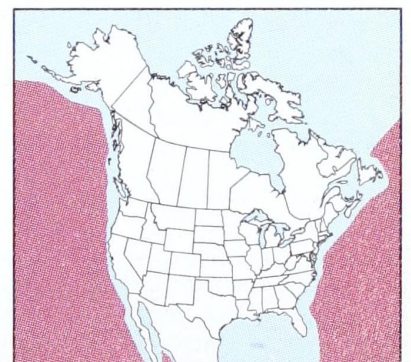
First flight at 49–59 days.
1 brood per year.

- **POPULATION** Casual May to November well offshore on both Pacific and Atlantic Coasts, as postbreeding birds disperse northward from Antarctica.

Similar Birds



GREAT SKUA
Larger; reddish streaking on upperparts; lacks pale nape
• eastern range.



Flight Pattern



Strong swift direct flight with constant shallow wing beats.

Nest Identification

Shape  Location 

Moss or bare soil • on rocky slopes, bottom of hill • male begins nest, female completes • 1–3 yellow to green or brown eggs marked with purples and browns; short elliptical, 2.4 inches long.

Plumage Sexes similar	Habitat 	Migration Migratory	Weight 2.5 pounds
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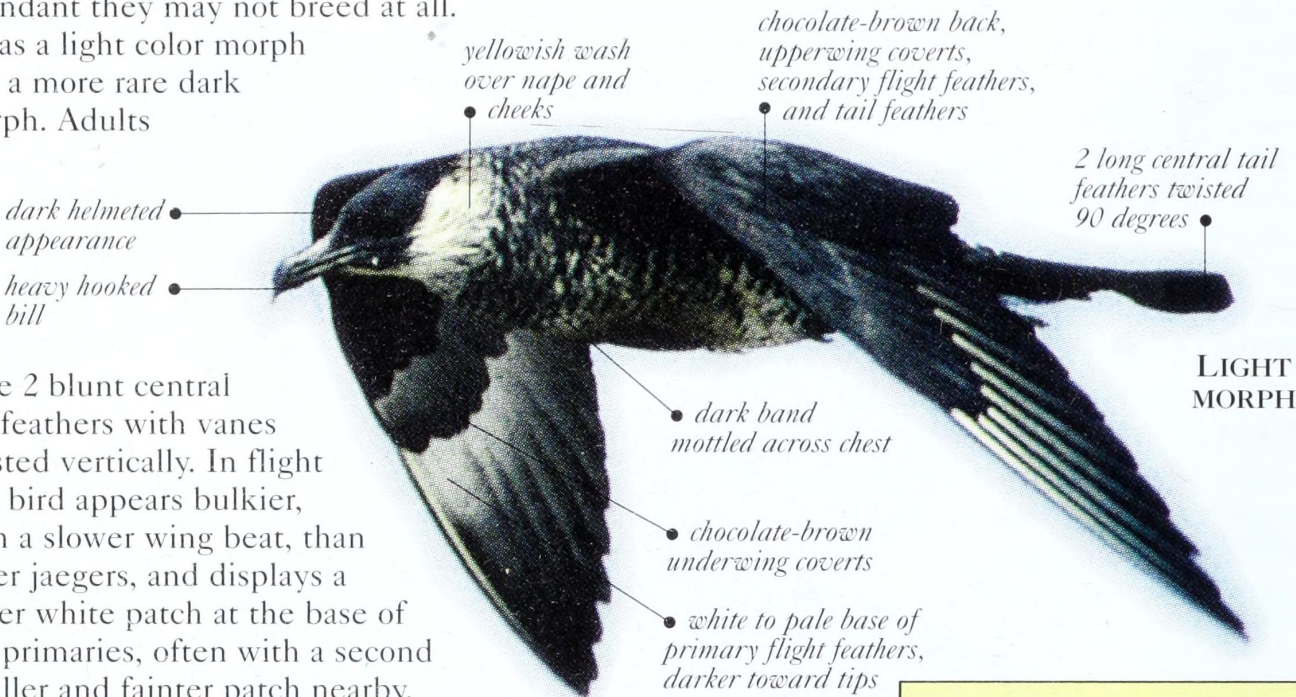
DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Stercorarius pomarinus</i>	Length 20–23 inches	Wingspan 48 inches
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POMARINE JAEGER

The largest and strongest jaeger is about the size of a Ring-billed or Heermann’s Gull, with a bulky body, thick neck, and wide-based wings. Like many of the skuas, its nesting is related to lemming populations on the Arctic tundra. When the brown lemming is numerous these seabirds nest, and when the rodent is not abundant they may not breed at all. It has a light color morph and a more rare dark morph. Adults



LIGHT MORPH

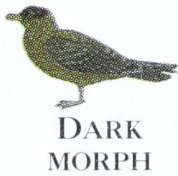
have 2 blunt central tail feathers with vanes twisted vertically. In flight this bird appears bulkier, with a slower wing beat, than other jaegers, and displays a larger white patch at the base of the primaries, often with a second smaller and fainter patch nearby.

- **SONG** Often silent, except on breeding grounds. Sharp *which-yew* or *yeeew*; high-pitched *week-week* or *yeeew-eee*.
- **BEHAVIOR** Solitary or in pairs. Predatory. Eats small mammals, fish, birds, carrion, and refuse. Often steals from other seabirds. Picks up prey with bill, never talons. Found at sea outside breeding season.
- **BREEDING** Monogamous; small colonies. During courtship, male and female face one another and vibrate wings while singing.
- **NESTING** Incubation 25–27 days by both sexes. Semiprecocial young leave nest after a few days, but tended 42 days or more. First flight at 21–27 days after fledging nest. Average less than 1 brood per year.

Flight Pattern	
Strong steady flight with slow deep wing beats like a large gull; may alternate several wing beats with long glide.	

Nest Identification	
Shape	Location

- **POPULATION** Uncommon to fairly common on tundra breeding grounds. Common to uncommon far offshore on both coasts outside breeding season.

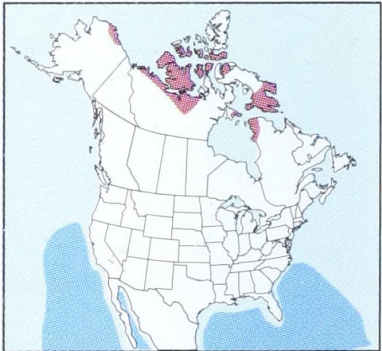


DARK MORPH



JUVENILE

Similar Birds	
	PARASITIC JAEGER Smaller; more slender; two central tail feathers extended and pointed but not twisted; smaller bill; less white at base of primaries.
	SOUTH POLAR SKUA Bulky, heavy body; golden streaking on nape; hunchback appearance; short wedge-shaped tail with central tail feathers not extended.



Lined with plant material • on ground • built by both parents • 2 olive to brown eggs, with dark brown blotches; short elliptical, 2.6 inches long.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.4 pounds
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DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Stercorarius parasiticus</i>	Length 15–21 inches	Wingspan 36 inches
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PARASITIC JAEGER

This skua can sometimes be seen from shore, intruding upon migrating flocks of terns and stealing food from other seabirds. It has two distinct color morphs, light and dark, and many intermediates. Falconlike in pursuit, it is about the size of a Laughing or Mew Gull and normally flies with quick wing beats broken by short glides. It is not known to breed until three to five years of age.

• **SONG** Usually silent when not on breeding grounds. Yelping notes and rising *skooo-a* or *ka-aaow*.

• **BEHAVIOR** Solitary off breeding grounds. Predatory. Eats refuse, small birds (feathers and all), bird eggs, small mammals, insects, and berries. Steals most of its food from terns and other seabirds. When ashore, may walk while foraging. Winters closer to the coast than other jaegers.

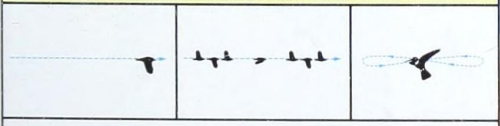
• **BREEDING** Monogamous. Colonial. Paler morphs usually breed at younger age than darker morphs.

• **NESTING** Incubation 25–28 days by both parents. Young semiprecocial; first flight at 25–35 days, but tended

by both parents and fed by regurgitation for 21 days or more. 1 brood per year.

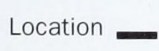
• **POPULATION** Fairly common; stable. Casual inland in fall migration; especially on Great Lakes and Salton Sea.

Flight Pattern



Fast wing beats compared to other jaegers; often alternates flap and glide like a falcon. Also hovers.

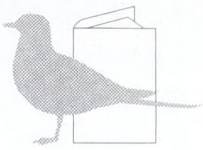
Nest Identification

Shape  Location 

Lined with plant material • on ground near base of cliff or slope • male chooses site; built by both sexes, but female does more • 2 brown to green or sometimes blue eggs, with brown spots; short elliptical, 2.2 inches long.

Plumage Sexes similar	Habitat 	Migration Migratory	Weight 14.9 ounces
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DATE _____ TIME _____ LOCATION _____



white base of primaries

brown upperparts

brown cap

thin bill (for a jaeger)

yellowish wash on cheeks

2 pointed and extended central tail feathers



LIGHT MORPH JUVENILE



DARK MORPH ADULT

LIGHT MORPH ADULT

Similar Birds



POMARINE JAEGER
Larger; two central tail feathers twisted toward tip; larger and broader white wing patches; heavier bill.

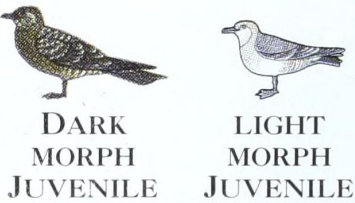
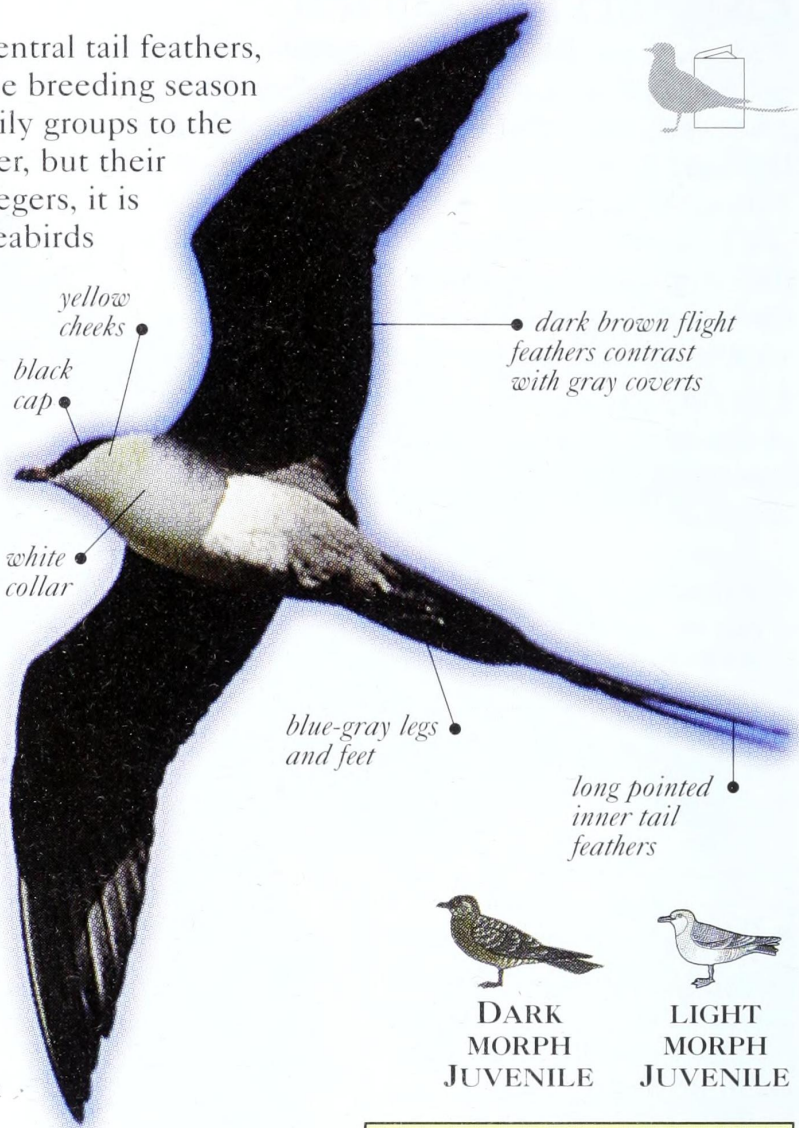


Family LARIDAE	Species <i>Stercorarius longicaudus</i>	Length 20–23 inches	Wingspan 30–33 inches
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LONG-TAILED JAEGER

Distinguished by its eight- to ten-inch central tail feathers, this jaeger is rarely seen from land outside breeding season in the Arctic. These birds migrate in family groups to the central Pacific and south Atlantic in winter, but their route is unknown. The smallest of the jaegers, it is the least likely to steal food from other seabirds and is highly dependent on the tundra's small rodent populations in summer. In flight adults do not show a breast band, as do other jaegers. They have light grayish brown upperparts and long slender wings without a white patch at the base of the primaries (shafts of three outer primaries are white) and a slender body. Juveniles have a short tail and a white patch at the base of the primaries under the wing.

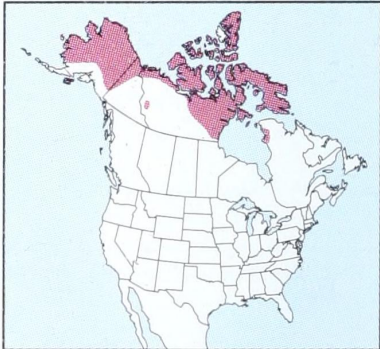
- **SONG** While flying, *pheu-pheu-pheu*. When irritated utters *kr-r-r-r*, *kr-r-r-r*, *kir-kri-kri*.
- **BEHAVIOR** In summer eats mostly lemmings and other small rodents, but also takes birds, eggs, insects, carrion, and berries. In winter eats fish, squid, carrion, and refuse. Uses beak to pick up food. Catches insects and other prey in flight. Often flies low over land or water. Most pelagic jaeger in postbreeding season.
- **BREEDING** Monogamous. Colonial. Does not breed until 3–4 years old. Courtship display features zigzag chasing flight. During courtship, male feeds female from the ground.
- **NESTING** Incubation 23–25 days by both sexes. Young semiprecocial; first flight at 22–27 days, but both sexes tend and feed by regurgitation for 7–21 days. 1 brood per year unless lemmings are scarce, then birds will not breed at all.



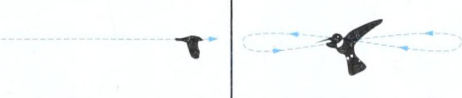
Similar Birds



PARASITIC JAEGER
Larger; black legs; larger white patch on outer wings; grayish breast band; short, pointed central tail feathers.



Flight Pattern



Light floating buoyant ternlike flight is graceful compared with other jaegers. Hovers before dipping to pick up prey.

Nest Identification

Shape 

Location 

• **POPULATION** Common on tundra breeding grounds. Trends stable. Disperses widely at sea outside breeding season. Fairly common to uncommon off West Coast; casual in Gulf of Mexico and on East Coast. Rare to accidental inland.

Lined with grasses, moss, and leaves • on ground near edge of slope • built mostly by female • 2 brown to olive eggs with dark brown and gray blotches; short elliptical, 2.2 inches long.

Plumage Sexes similar	Habitat 	Migration Migratory	Weight 9.9 ounces
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DATE _____ TIME _____ LOCATION _____

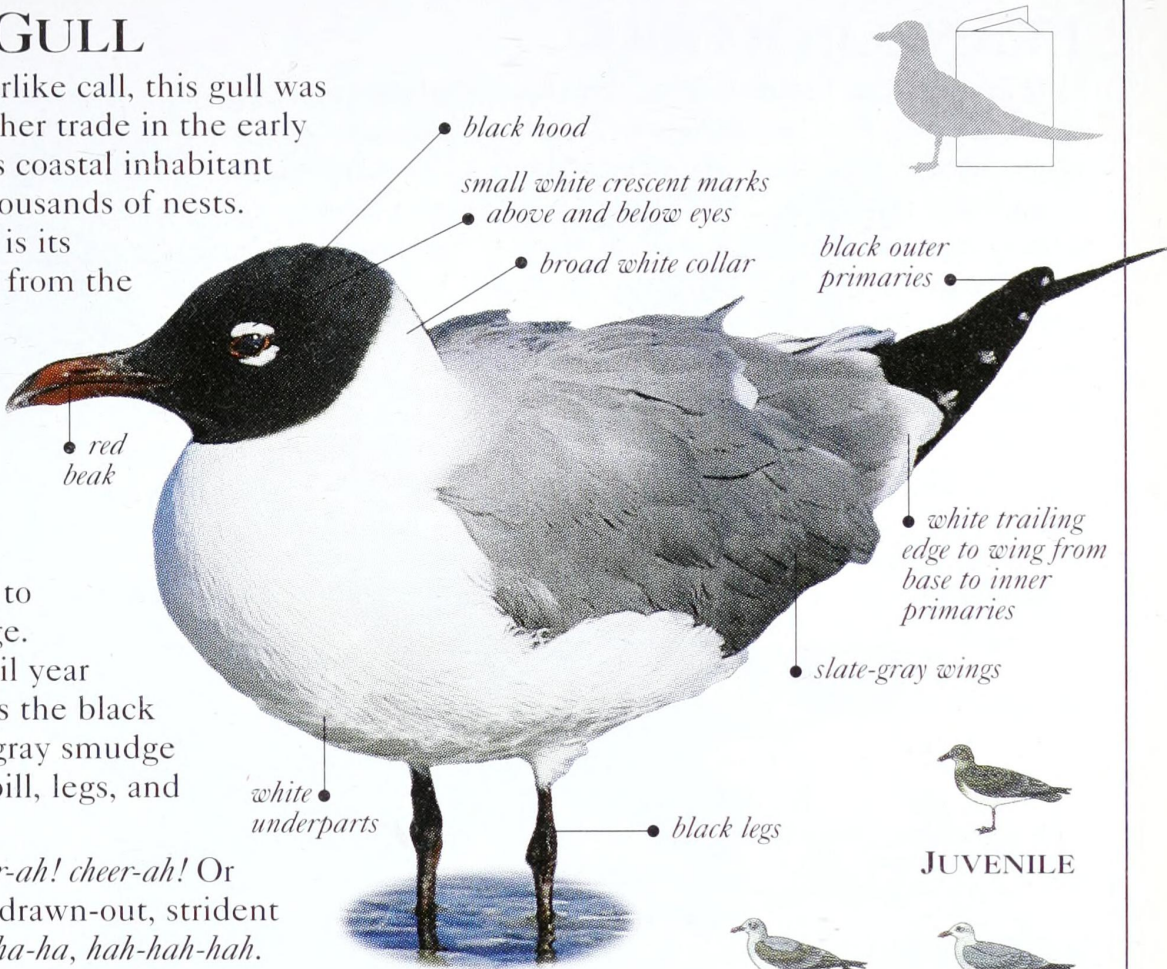
Family FRINGILLIDAE	Species <i>Larus atricilla</i>	Length 15–17 inches	Wingspan 40–42 inches
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LAUGHING GULL

Named for its laughterlike call, this gull was threatened by the feather trade in the early 20th century. Now this coastal inhabitant forms colonies with thousands of nests. A distinguishing habit is its tendency to steal food from the Brown Pelican by snatching it out of the pelican's pouch after it surfaces with a catch. This three-year gull passes through two different winter plumages prior to attaining adult plumage. Adults have a white tail year round. In winter adults the black head is replaced by a gray smudge on the nape, and the bill, legs, and feet are dull blackish.

- **SONG** Throaty *cheer-ah! cheer-ah!* Or *ka-ha, ka-ha* and long, drawn-out, strident laugh of *ha-ha-ha-hah-ha-ha, hah-hah-hah.*
- **BEHAVIOR** Gregarious. Omnivorous; eats fish, crustaceans, insects, carrion, eggs, young birds, earthworms, and refuse. Unlike some shoreline birds, does not swim underwater but snatches food from surface or ground, foraging while walking or wading. Occasionally plunges head and neck underwater while searching for or catching food. Excellent flier; ride updrafts from ships and ferries across bays, channels, or shipping lanes for miles, watching for food thrown overboard into water. Will accept food tossed in the air and from human hand.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation about 20 days by both sexes. Young leave nest to hide in nearby vegetation after a few days. Both sexes feed first by regurgitation, solid food later. First flight at 35 days. 1 brood per year.

- **POPULATION** Common. Probably stable over much of range, but numbers have been increasing in the northeastern US in recent years.



JUVENILE



FIRST WINTER

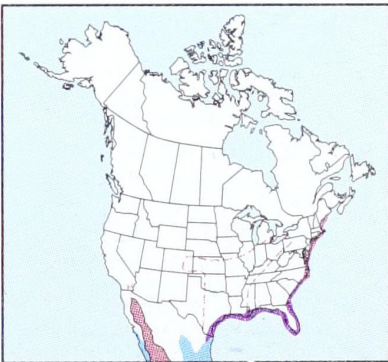


SECOND WINTER

Similar Birds



FRANKLIN'S GULL
Partial black hood; white bar on primaries; white primary tips; broader white crescent patches above and below eyes; pale gray central tail feathers; paler bases to underwing primaries.



Flight Pattern	
	
Slow flight with deep wing beats. May soar on updrafts and deflected wind over dunes, beaches, parking lots, and ships.	

Nest Identification	
Shape 	Location 

Little lining in scrape; cup lined with grass, sticks, and debris • built by both sexes • 3 olive to buff eggs with brownish marks; ovate to elliptical ovate or pyriform, 1.9–2.3 x 1.9–2.3 inches.

Plumage Sexes similar	Habitat 	Migration Migratory	Weight 11.5 ounces
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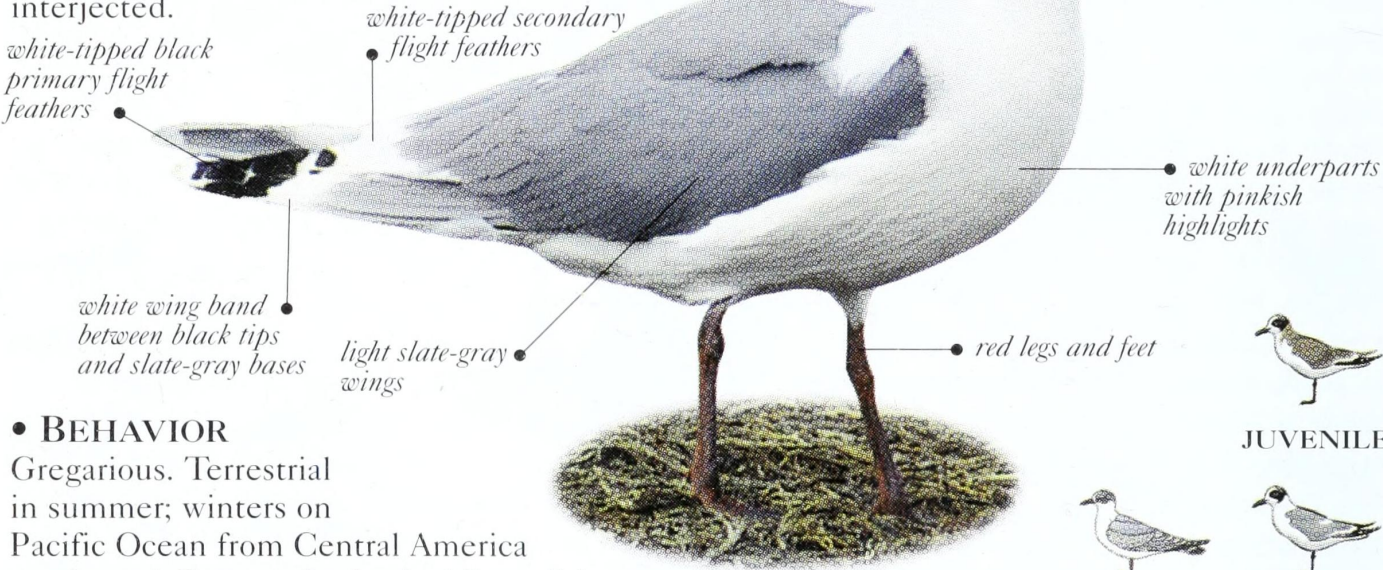
DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Larus pipixcan</i>	Length 13–15 inches	Wingspan 36 inches
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FRANKLIN'S GULL

Often called the Prairie Dove, this three-year gull is sometimes spotted on farmland, following plows to feed on grubs and other insects. The bird has a characteristic black hood in summer, but in winter its head is white with the reduced dusky hood covering its eye and reaching from midcrown to nape. In flight, it differs from the similar Laughing Gull by a white bar and large white tips on primaries and a paler surface on the underwing primaries.

- **SONG** A shrill *kuk-kuk-kuk*, with *weeh-ah, weeh-ah* occasionally interjected.



• **BEHAVIOR**

Gregarious. Terrestrial in summer; winters on Pacific Ocean from Central America southward. Forages for food while walking, wading, or swimming, sometimes spotting prey while hovering over water. Eats insects, fish, leeches, earthworms, crustaceans, and snails. Sometimes catches insects while flying. Attends agricultural cultivating machinery, taking exposed prey.

- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 18–25 days by both sexes. Semiprecocial young fed by both sexes. First flight at 32–35 days. 1 brood per year.
- **POPULATION** Common in breeding range, but local populations often fluctuate due to rainfall or drought patterns. Rare in migration on both coasts; rare in winter on Gulf Coast and in southern California.



JUVENILE



FIRST WINTER

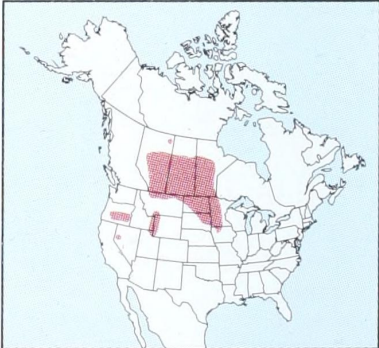


SECOND WINTER

Similar Birds



LAUGHING GULL
Fuller hood; smaller crescent patches around eyes; lacks white wing bar; darker primary tips above and below.



Flight Pattern	
Strong direct flight with deep wing beats. Soars on thermals and updrafts.	

Nest Identification	
Shape	Location

- **CONSERVATION** Some loss of nesting habitat due to agricultural practices.

Lined with bulrushes, cattails, and other plant material • built by both sexes • 3 dull buff, olive, or brown eggs blotched with brown or black; ovate to elliptical ovate or pyriform, 2.1 inches long.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 9.9 ounces
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DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Larus minutus</i>	Length 10–12 inches	Wingspan 24–26 inches
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LITTLE GULL

This European native is rarely encountered in great numbers in North America. The first Little Gull nest in North America was discovered in 1962. The smallest of all gulls, this shoreline inhabitant sometimes is seen alongside Bonaparte's Gulls and terns. In winter months, the Little Gull sports a gray cap, a gray spot behind both eyes, and a black bill. Breeding adults have a black cap. In flight, note the rounded wing with dark gray to black underwings, contrasting with the pale upperwing and body and square tail. Juveniles show a black bar on the upperwings in flight. This is a two- to three-year gull.

- **SONG** Calls include a *kek-kek-kek* with a repeated *kay-e*.
- **BEHAVIOR** Forages for food by flying low over land or the water's surface, sometimes dipping down while in flight to catch prey. Also forages while swimming and wading in shallow water. Feeds primarily on insects in summer; otherwise crustaceans, mollusks, spiders, small fish, and marine worms. Feeding flight is hesitant, wavering, and ternlike as it dips down, legs trailing, to pick up food from water.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 23–25 days by both sexes. Semiprecocial young remain in nest 21–24 days, fed by both sexes. 1 brood per year.
- **POPULATION** Rare to uncommon. North American populations scattered and irregular. Common in Eurasian countries.

Flight Pattern

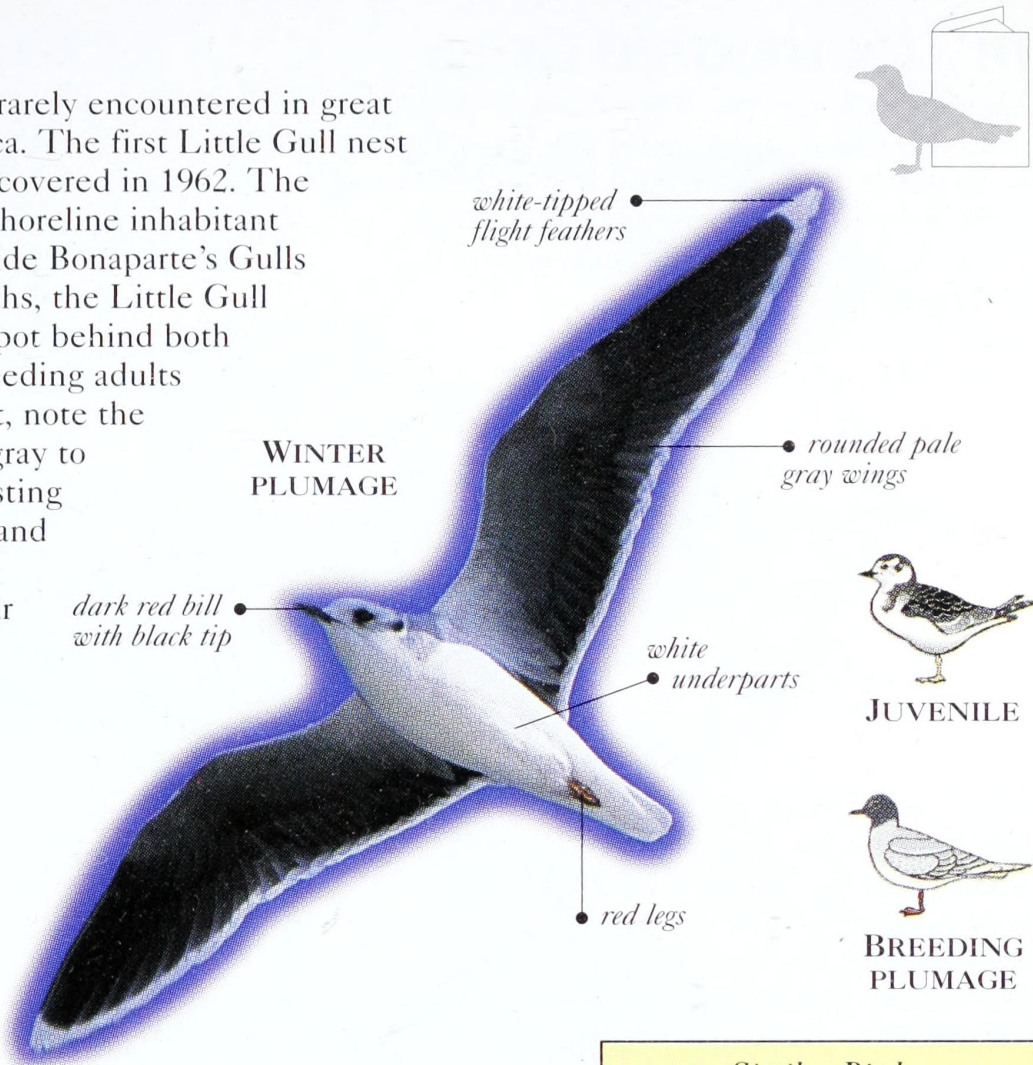


Strong direct flight with deep wing beats, particularly on downstroke.

Nest Identification

Shape  Location 

Grass- and leaf-lined with weeds and reeds • on wet ground, sometimes built higher • built by both sexes • 1–5 yellowish, olive-brown, greenish gray eggs, marked with reddish brown and gray; ovate, 1.6 x 1.8 inches.



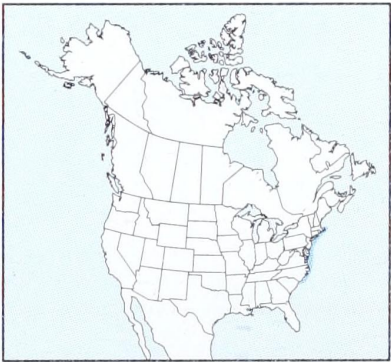
Similar Birds



BONAPARTE'S GULL
Larger; black bill; white wedge on outer wing (primaries); black-tipped primaries; pale underwing surface.



BLACK-HEADED GULL
Significantly larger, dark brown-black head; red bill; white wedge on outer wing; black-tipped primaries.



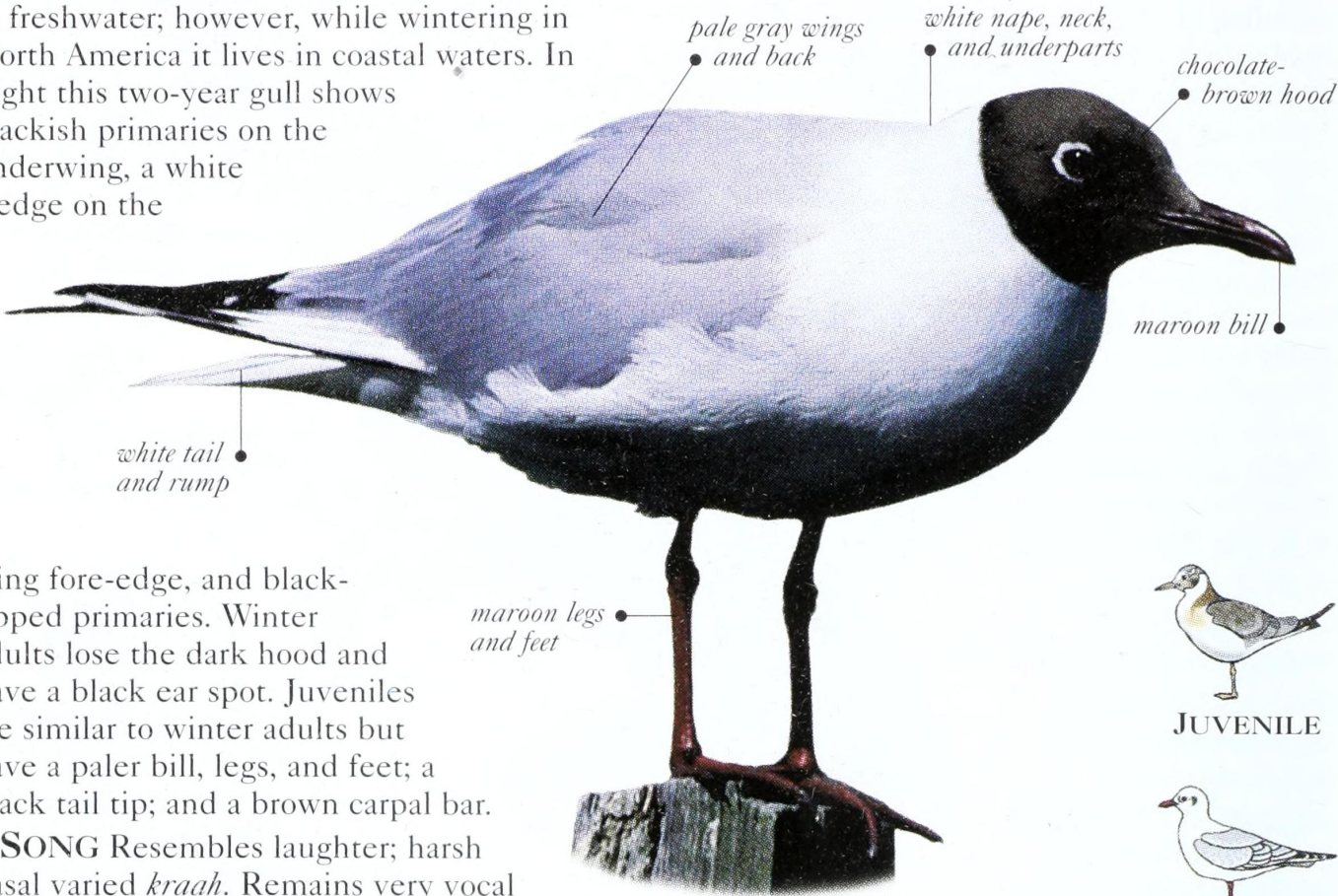
Plumage Sexes similar	Habitat  	Migration Migratory	Weight 4.2 ounces
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DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Larus ridibundus</i>	Length 14–16 inches	Wingspan 40 inches
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BLACK-HEADED GULL

Despite its name, the Black-headed Gull has a chocolate-brown head during the breeding season. In its native Eurasian habitat it is usually found in freshwater; however, while wintering in North America it lives in coastal waters. In flight this two-year gull shows blackish primaries on the underwing, a white wedge on the



wing fore-edge, and black-tipped primaries. Winter adults lose the dark hood and have a black ear spot. Juveniles are similar to winter adults but have a paler bill, legs, and feet; a black tail tip; and a brown carpal bar.



JUVENILE



WINTER PLUMAGE

- **SONG** Resembles laughter; harsh nasal varied *kraah*. Remains very vocal outside breeding season.
- **BEHAVIOR** Eats insects, crustaceans, earthworms, marine worms, mollusks, small fish, carrion, seeds, and berries. Swoops down while flying and picks up prey from water. Also steals food from other birds. Follows plows to pick up exposed prey.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 23–26 days by both sexes. Semiprecocial young remain in nest for 10 days, fed by both sexes. First flight at 35 days. 1 brood per year.
- **POPULATION** Fairly common in winter in Newfoundland

where there are small breeding colonies. Rare in winter off the coast of the Maritimes and New England; accidental to western Alaska. Casual to accidental elsewhere.

Flight Pattern

Light buoyant direct flight on long pointed angled wings. Soars on thermals and updrafts.

Nest Identification

Shape

Location

Lined with leaves, moss, and grasses • on ground hidden by vegetation • built by both sexes • 2–4 gray-green to tan or yellowish eggs marked with brown or olive; oval to elliptical, 2 inches long.

Similar Birds

BONAPARTE'S GULL
Smaller; pale underwing, including primaries; black hood; black bill.



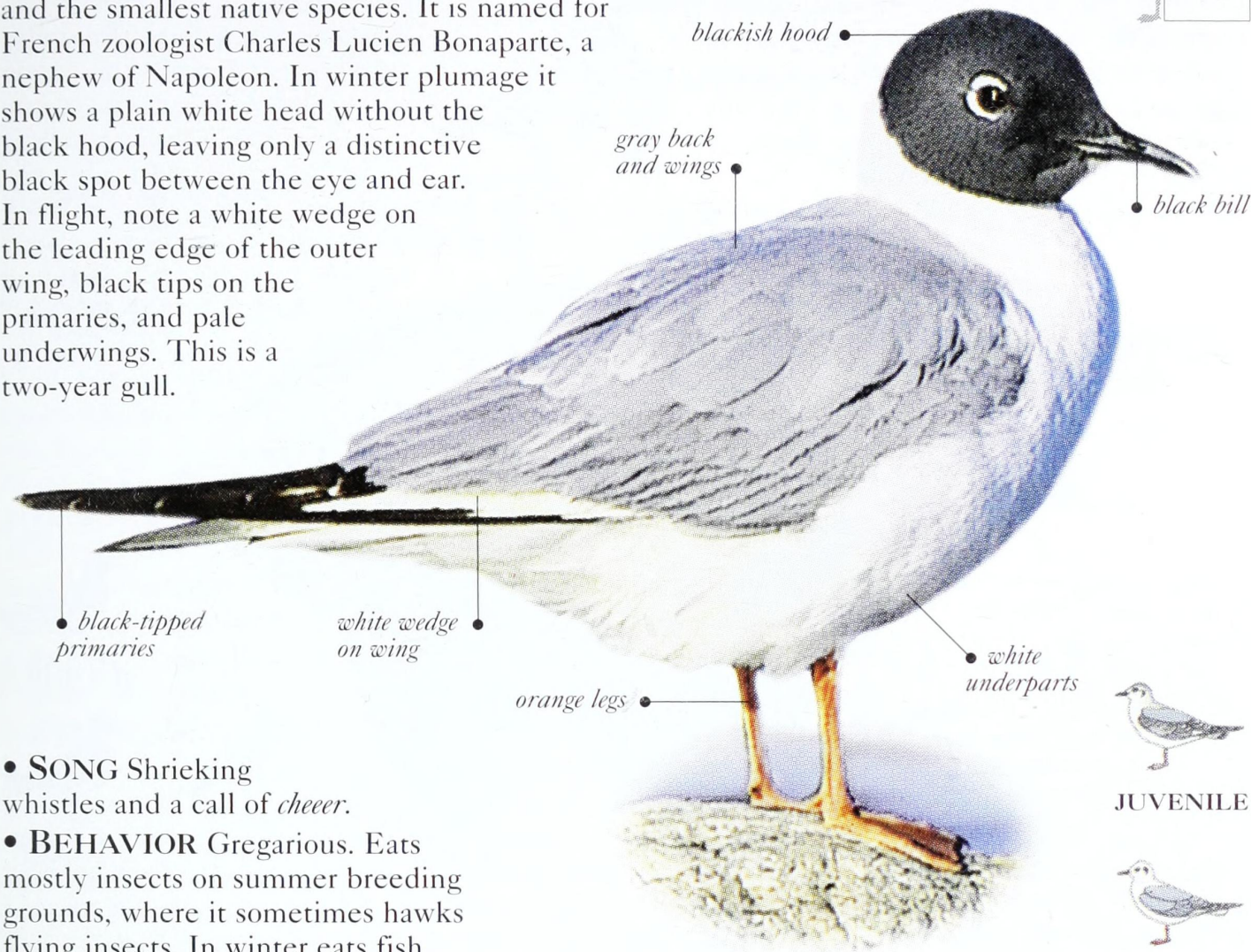
Plumage Sexes similar	Habitat	Migration Migratory	Weight 10.0 ounces
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DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Larus philadelphia</i>	Length 12–14 inches	Wingspan 33–36 inches
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BONAPARTE’S GULL

This is one of the smallest gulls in North America and the smallest native species. It is named for French zoologist Charles Lucien Bonaparte, a nephew of Napoleon. In winter plumage it shows a plain white head without the black hood, leaving only a distinctive black spot between the eye and ear. In flight, note a white wedge on the leading edge of the outer wing, black tips on the primaries, and pale underwings. This is a two-year gull.



JUVENILE



WINTER PLUMAGE

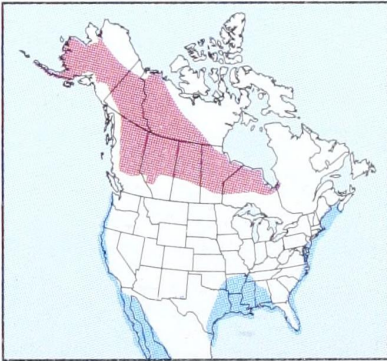
- **SONG** Shrieking whistles and a call of *cheer*.
- **BEHAVIOR** Gregarious. Eats mostly insects on summer breeding grounds, where it sometimes hawks flying insects. In winter eats fish, crustaceans, and marine worms. Catches fish by wading in water as well as by diving. Forages on ground for insects and also catches them in flight. Its habit of nesting in trees is most unusual among gulls.
- **BREEDING** Monogamous. Solitary or small colonial.
- **NESTING** Incubation 24 days by both sexes. Not known when semiprecocial young first fly, but known to be fed by both parents while in nest. 1 brood per year.

- **POPULATION** Stable. Common in migration and winter on Great Lakes and on Pacific, Atlantic, and Gulf Coasts. Uncommon migrant inland in the West.

Similar Birds



BLACK-HEADED GULL
Dark brown-black hood; red bill; dark underside of primaries.



Flight Pattern



Light and buoyant direct flight is ternlike, with rapid wing beats.

Nest Identification

Shape  Location 

Sticks lined with moss and grasses; abandoned nests lined with hay and moss

- coniferous tree, 4–20 feet above ground
- built by both sexes
- 2–4 olive to buff eggs, marked with brown blotches; ovate to elliptical-ovate, 2 inches long.

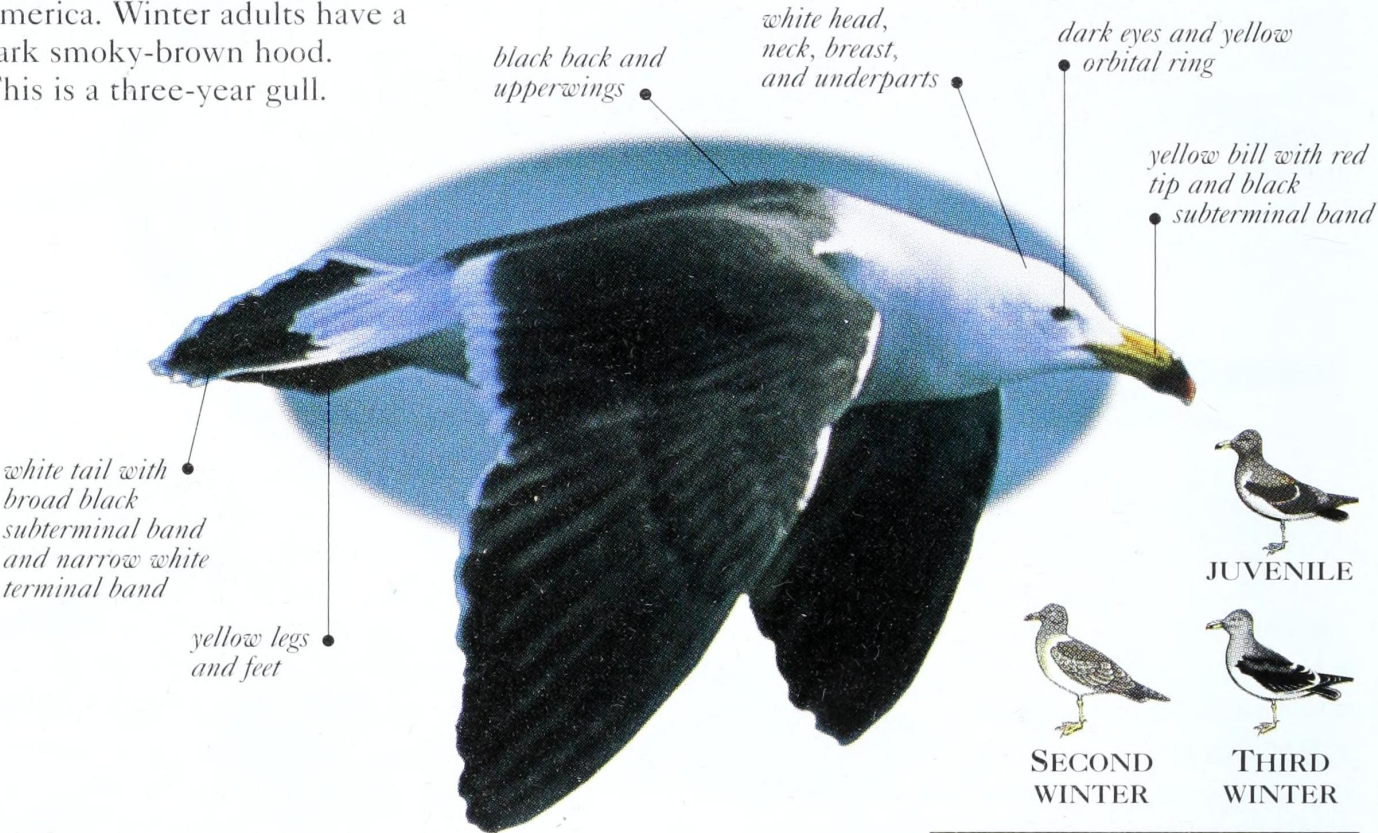
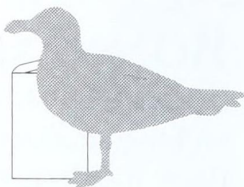
Plumage Sexes similar	Habitat 	Migration Migratory	Weight 7.5 ounces
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DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Larus belcheri</i>	Length 20 inches	Wingspan 48–49 inches
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BAND-TAILED GULL

Marked by its black back and distinctive tail band, this stray gull from South America often harasses cormorants, forcing them to regurgitate their food. The Band-tailed Gull also preys on the eggs and chicks of guano-producing birds on the Pacific coast of its native South America. Winter adults have a dark smoky-brown hood. This is a three-year gull.



- **SONG** Not recorded.
- **BEHAVIOR** Coastal species of the Band-tailed Gull are found on beaches, on offshore islands, and in open waters. This bird eats insects, small fish, crustaceans, marine worms, carrion, and refuse. It picks up food while in flight. Also forages while wading, walking, or swimming. Does not follow ships.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation time 28–30 days by both sexes. Both sexes feed nestlings. Young semiprecocial; first flight at 35–40 days. 1 brood per year.

Flight Pattern

Direct flight with strong deep wing beats.

Nest Identification

Shape Location

Lined with leaves, moss, and grasses • on ground • built by both sexes

• 3 brownish to olive-colored eggs, blotched with brown and gray; ovate to elliptical ovate, 2.8 inches long.

Similar Birds

BLACK-TAILED GULL
Light yellow eyes; shorter legs; thinner bill; paler gray mantle and upperwings

- winter adult has grayish brown smudge on head and nape.



Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.3 pounds
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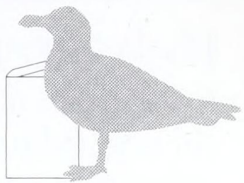
DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Larus dominicanus</i>	Length 23 inches	Wingspan 53 inches
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KELP GULL

This is the only large gull with a black back and white tail that breeds in the Southern Hemisphere, where it has a wide range. Occasionally strays are seen off North America's Gulf Coast, and since the 1990s several pairs have nested off the Louisiana coast on the Chandeleur Islands; accidental in Maryland. A three-year gull, the adult looks like a Great Black-backed Gull or Western Gull, but the white in the wing tips is more restricted and the legs and feet are greenish yellow instead of pink. In flight it shows grayish white underwings with dusky gray primaries and white tips. Some breeding adults may have streaks on the head or neck, but winter adults do not.

- **SONG** A harsh *kee-ooch*, often repeated rapidly; other shrill and squawking calls.
- **BEHAVIOR** Gregarious. In small groups, larger flocks, or with other gulls with which it forages, rests, and roosts. Forages at sea near coast and along shore, where it frequents estuaries, harbors, and outlying and offshore islands. Also frequents inland rivers and lakes. Not pelagic. Picks food from water and pursues terrestrial prey. Eats small fish, crustaceans, rodents, insects, and young of other birds. Also eats carrion and offal.
- **BREEDING** Monogamous. Colonial. May breed with the Herring Gull.
- **NESTING** Incubation 24–25 days by both sexes. Semiprecocial young brooded by female; tended by both sexes for 35–40 days. 1 brood per year.
- **POPULATION** Casual in North America on Gulf Coast in southeastern Texas and islands off southeastern Louisiana.



JUVENILE



SECOND WINTER

Similar Birds

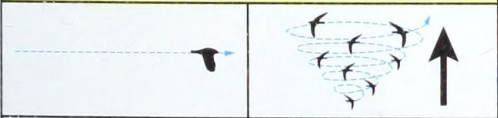


LESSER BLACK-BACKED GULL
Smaller; yellow legs and feet • breeding adult has slate-gray upperwings and back; darker gray underwings • winter adults additionally have dusky streaking on the head and neck.



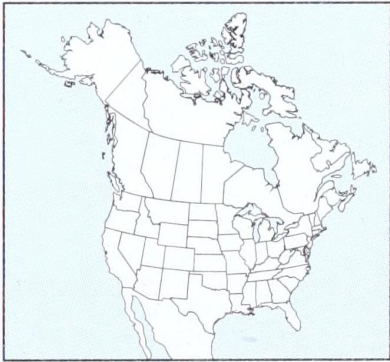
GREAT BLACK-BACKED GULL
Adults are much larger; heavy yellow bill with red gonys spot; black back and upperwings; extensive white in tips and mirrors of wings; pink legs and feet.

Flight Pattern

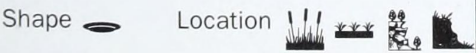


Direct flight with slow steady wing beats; soars on thermals and updrafts.

- **CONSERVATION** Vulnerable to disturbance and destruction of eggs and chicks by humans and by domestic or introduced predators at its nesting colonies.



Nest Identification



Lining of grasses and weeds • hollow in grassy tussock or pile of grasses set in reeds, or on rock stacks • built by both sexes • 2–3 eggs, green-blue or buff with purple or brown spots and blotches; short oval to long oval, 2.55 x 1.7 inches.

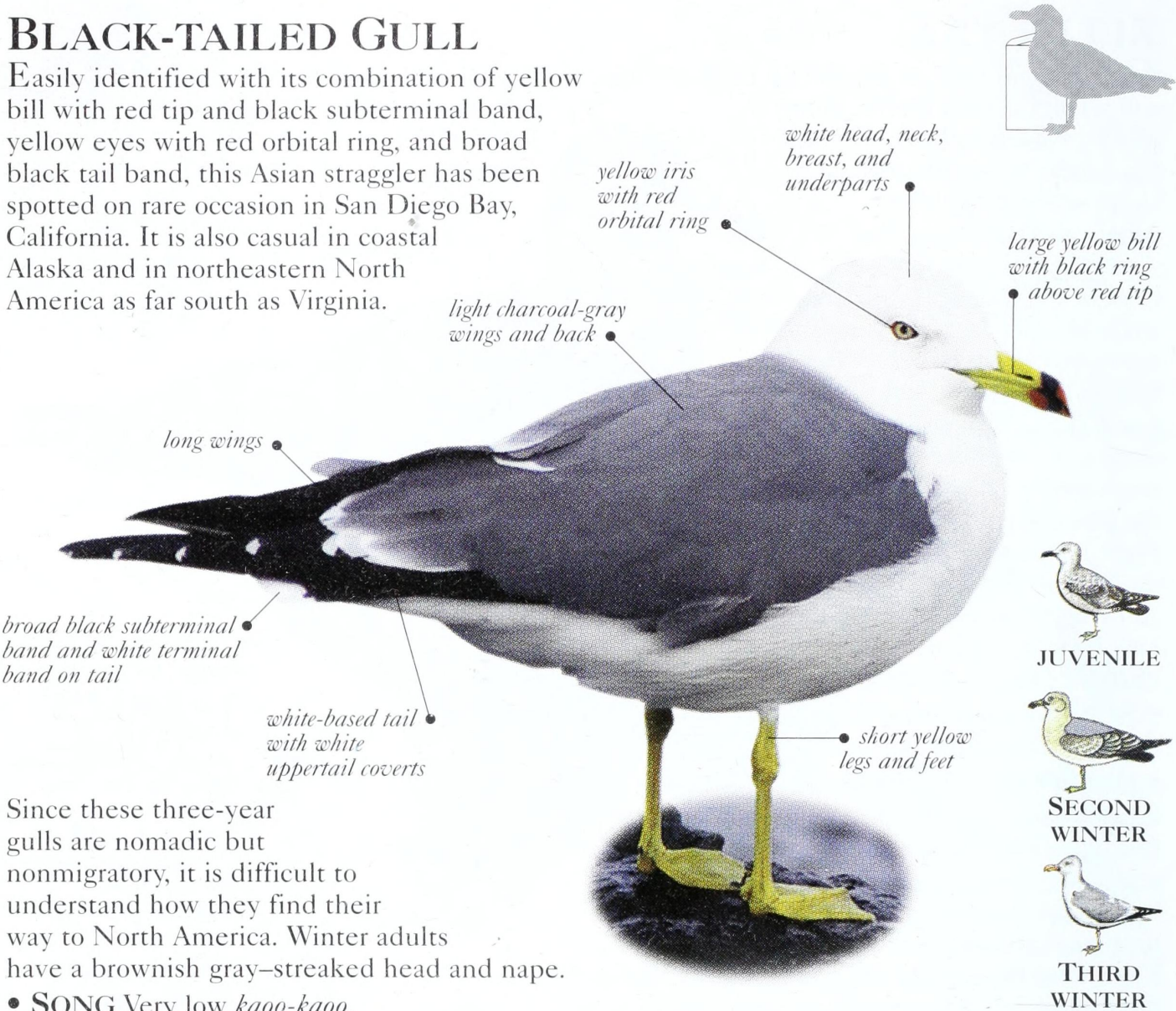
Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 1.3 pounds
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DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Larus crassirostris</i>	Length 18–19 inches	Wingspan 47–48 inches
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BLACK-TAILED GULL

Easily identified with its combination of yellow bill with red tip and black subterminal band, yellow eyes with red orbital ring, and broad black tail band, this Asian straggler has been spotted on rare occasion in San Diego Bay, California. It is also casual in coastal Alaska and in northeastern North America as far south as Virginia.



Since these three-year gulls are nomadic but nonmigratory, it is difficult to understand how they find their way to North America. Winter adults have a brownish gray–streaked head and nape.

- **SONG** Very low *kaoo-kaoo*.
- **BEHAVIOR** Gregarious. Frequents seashores, where it feeds on small fish, especially smelt and greenlings. Also eats insects, crustaceans, carrion, and refuse. Like most gulls, catches insects and other food in flight. Often forages while wading, swimming, and walking.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 24–27 days by both sexes.

Semiprecocial young known to be fed by both sexes, but it is not known how long they stay in nest. First flight at 30–40 days. 1 brood per year.

- **POPULATION** Accidental to casual in North America. Common in Asia.

Flight Pattern

Strong direct flight with deep wing beats.

Nest Identification

Shape Location

Dry grass • on ledges, slopes, and small cliffs hidden by vegetation • built by both sexes • 2–3 greenish to ocherish eggs with dark spots; oval to elliptical oval, 2.6 inches long.

Similar Birds

BAND-TAILED GULL
Darker blackish upperwings and mantle; dark eyes with yellow orbital ring; longer legs.



Plumage Sexes similar	Habitat	Migration Nonmigratory/nomadic	Weight 1.3 pounds
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DATE _____ TIME _____ LOCATION _____

Family LARIDAE

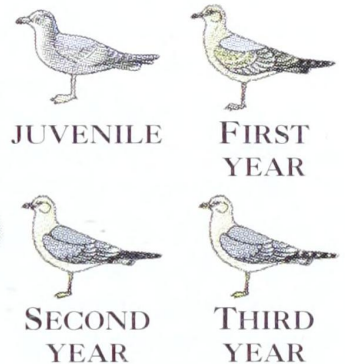
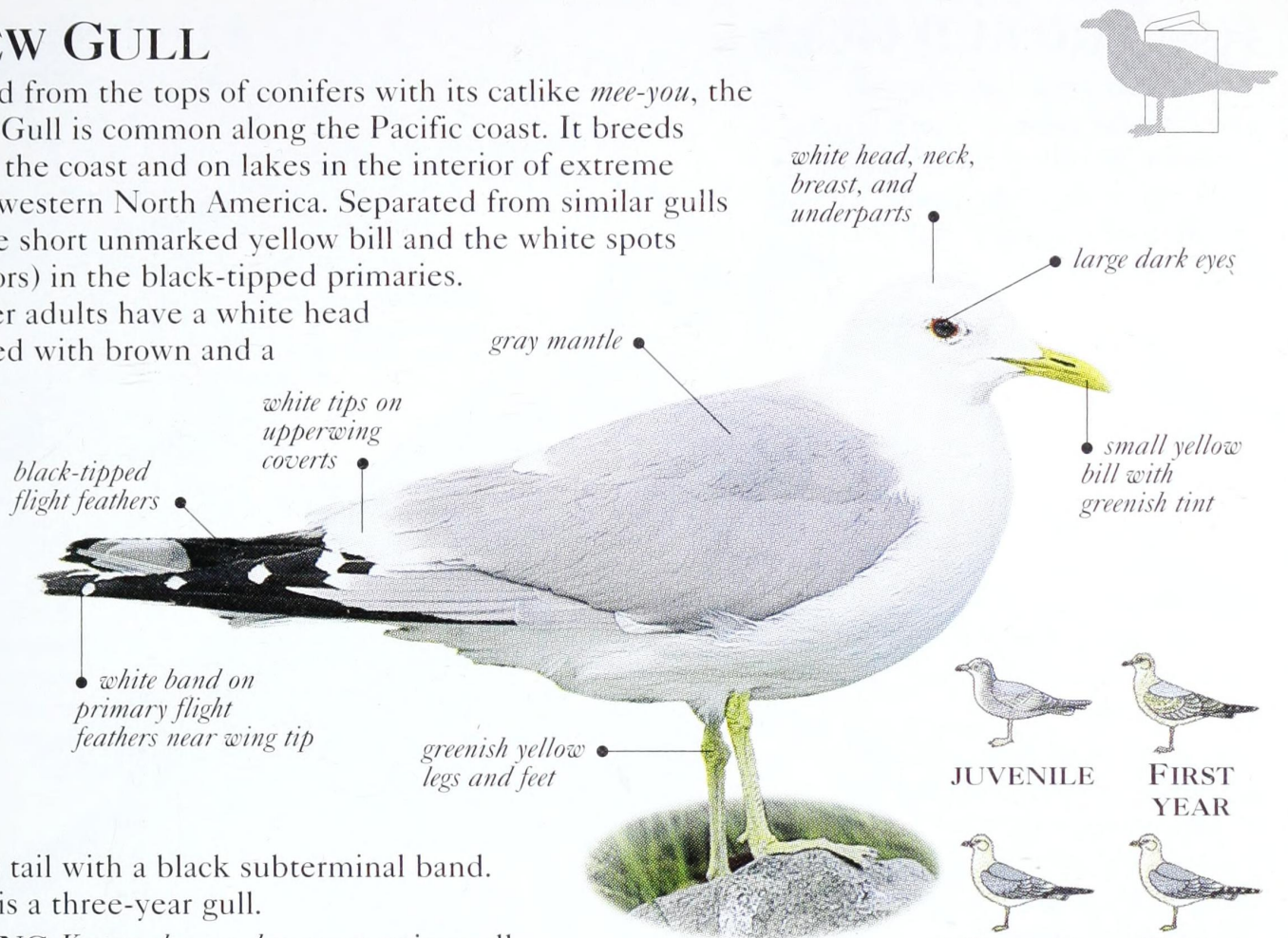
Species *Larus canus*

Length 16–18 inches

Wingspan 43 inches

MEW GULL

Heard from the tops of conifers with its catlike *mee-you*, the Mew Gull is common along the Pacific coast. It breeds along the coast and on lakes in the interior of extreme northwestern North America. Separated from similar gulls by the short unmarked yellow bill and the white spots (mirrors) in the black-tipped primaries. Winter adults have a white head washed with brown and a



white tail with a black subterminal band. This is a three-year gull.

• **SONG** *Kee-ya, kee-ya, kee-ya*; mewing call *quee-you* or *mee-you*.

• **BEHAVIOR** Omnivorous. Forages mostly on beaches, mudflats, garbage dumps, and pastures. Eats small fish, insects, crustaceans, mollusks, earthworms, small rodents, grains, berries, carrion, refuse, and small birds of other species. Catches insects in flight. While flying, drops hard-shelled mollusks to break shells and eats the flesh inside. Follows plows to pick up larvae and worms.

• **BREEDING** Monogamous; small colonies or solitary pairs.

• **NESTING** Incubation 22–28 days by both sexes. Semiprecocial young stay around nest 32–40 days, fed by both parents. First flight at 35 days. 1 brood per year.

• **POPULATION** Common; stable. Rare inland in western coastal states; casual to Great Lakes.

European race casual to Newfoundland and northeastern coast. Siberian race rare on Aleutian Islands.

• **CONSERVATION** Species vulnerable to marine pollution and oil spills.

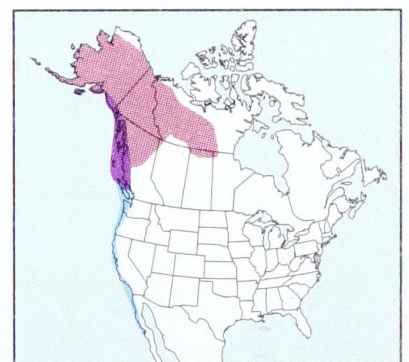
Similar Birds



RING-BILLED GULL
Larger; black ring around larger yellow bill; more black on primaries.



CALIFORNIA GULL
Larger; less white on primaries; larger heavier bill; red spot on lower mandible; greenish-yellow legs and feet.



Flight Pattern



Graceful buoyant nonlabored flight. Undulating, roller coaster-like flight with several rapid wing beats and a pause.

Nest Identification

Shape

Location

Scrape lined with grass and leaves; platform built of twigs and grass • built by both sexes • 3 yellow-brown to green-brown or olive to buff eggs, marked with browns; oval to elliptical oval, 2.2 inches long.

Plumage Sexes similar

Habitat

Migration Migratory

Weight 15.2 ounces

DATE _____ TIME _____ LOCATION _____

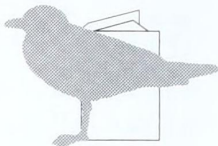
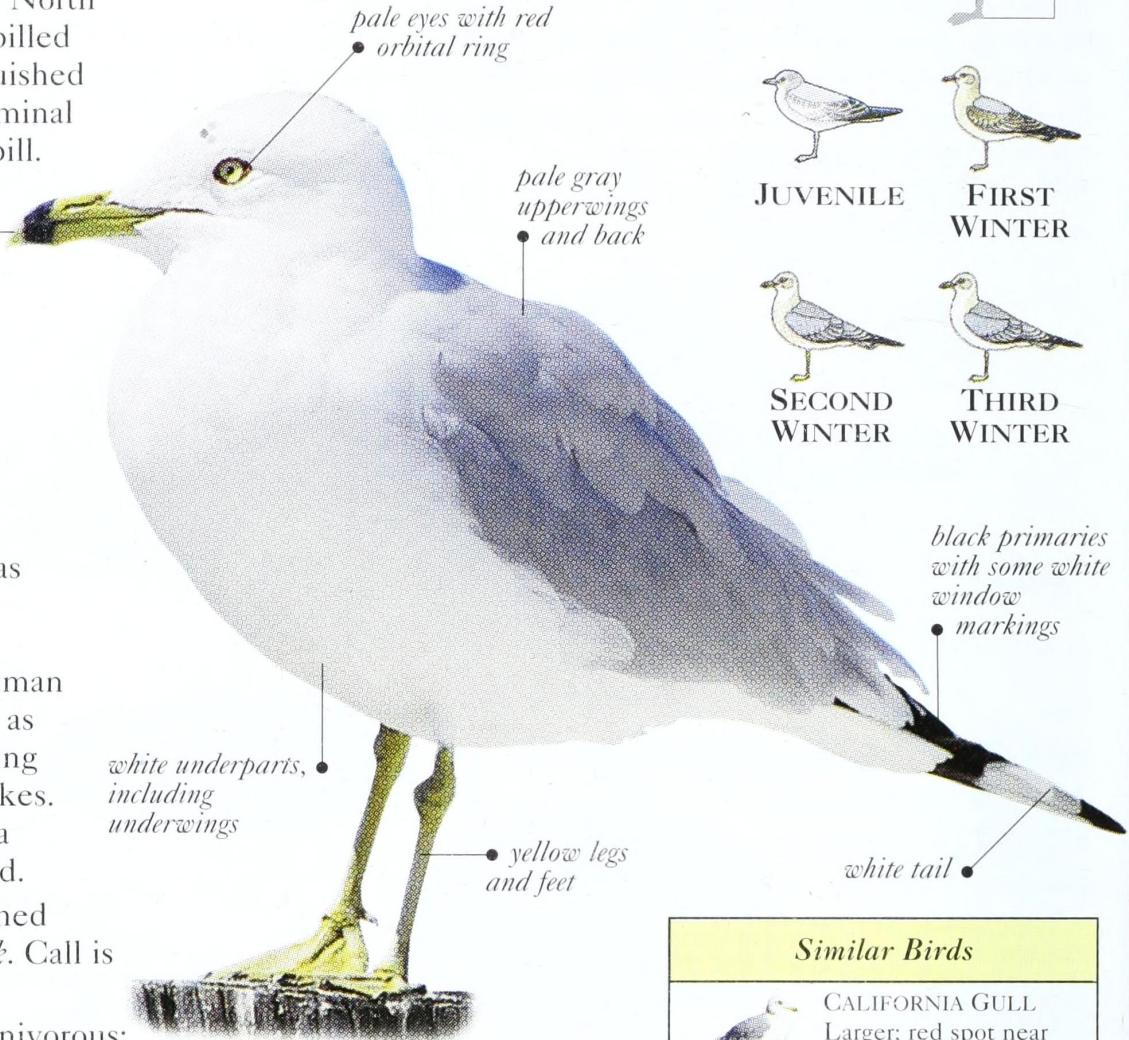
Family LARIDAE	Species <i>Larus delawarensis</i>	Length 18–19 inches	Wingspan 48 inches
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RING-BILLED GULL

One of the most widespread and familiar gulls in North America, the Ring-billed Gull can be distinguished by the black subterminal band on its yellow bill.

This three-year bird is like many other gulls in that it is energetic when gathering food. It has been seen foraging through dumps and parking lots near human populations, as well as wading and swimming for prey in inland lakes. Winter adults have a brown-streaked head.

- **SONG** High-pitched repeated *hiyak, hiyak*. Call is sharp *ky-ow*.
- **BEHAVIOR** Omnivorous; eats earthworms, insects and insect larvae, fish, grain, rodents, and refuse. Very active in gathering food; follows plows, scavenges through refuse, steals food from other birds, and forages while walking, wading, and swimming. This ecologically adaptable species has benefited by man's alteration of habitat.
- **BREEDING** Monogamous; sometimes polygamous. Colonial.
- **NESTING** Incubation 21–28 days by both sexes.



JUVENILE



FIRST WINTER



SECOND WINTER



THIRD WINTER

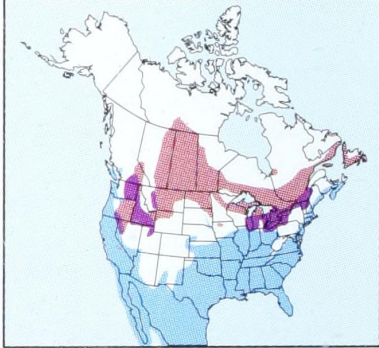
Similar Birds



CALIFORNIA GULL
Larger; red spot near tip of lower mandible; yellow bill; greenish yellow legs and feet.



HERRING GULL
Larger; red spot near tip of lower mandible; flesh-colored legs and feet.



Flight Pattern

Strong direct flight with deep wing beats. Soars on thermals.

Nest Identification

Shape Location

Semiprecocial young stay around nest 35 days. Fed by both sexes. 1 brood per year.

- **POPULATION** Abundant. Increasing despite depletion in late 1800s. Estimated at 3–4 million.

Made of weeds, bits of debris, and grass • on ground, sometimes among rocks or occasionally in low tree • built by both sexes • 2–4 olive-brown to brown eggs with lavender, gray, and dark brown blotches; ovate to short ovate, 2.3 inches long.

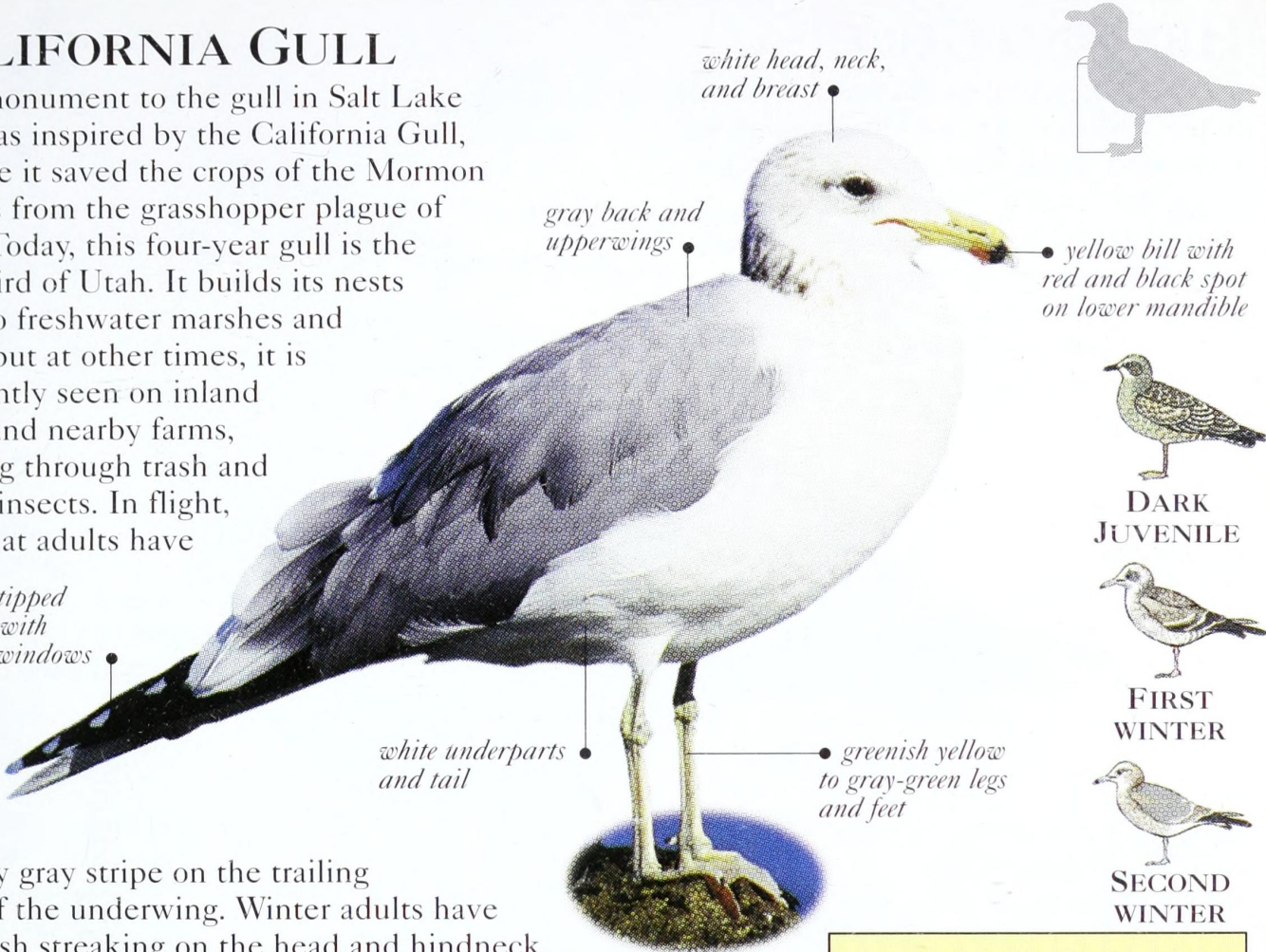
Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.2 pounds
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DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Larus californicus</i>	Length 21–22 inches	Wingspan 48–54 inches
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CALIFORNIA GULL

The monument to the gull in Salt Lake City was inspired by the California Gull, because it saved the crops of the Mormon settlers from the grasshopper plague of 1848. Today, this four-year gull is the state bird of Utah. It builds its nests close to freshwater marshes and lakes, but at other times, it is frequently seen on inland fields and nearby farms, foraging through trash and eating insects. In flight, note that adults have



- a dusky gray stripe on the trailing edge of the underwing. Winter adults have brownish streaking on the head and hindneck.
- **SONG** Has soft call of *kow-kow-kow*, *kee-ou*, or *klee-ah*. Has alarm call of *yowww*; also a quiet repeated *waaaaaaaah*.
 - **BEHAVIOR** Primarily an inland species during summer months. Feeds on a host of agricultural pests, from grasshoppers and many other insects to rodents. Also takes fish, eggs and young from other birds, worms, spiders, refuse, and carrion. Like most gulls it is an active forager.
 - **BREEDING** Monogamous. Colonial.
 - **NESTING** Incubation 23–27 days by both sexes. Semiprecocial young tended by both sexes; it is not known how long they stay in nest. First flight at about 45 days. 1 brood per year.
 - **POPULATION** Increasing. Abundant. Casual on Gulf Coast and East Coast in winter.

Similar Birds

RING-BILLED GULL
Smaller; black ring around beak; lighter eyes; lacks dusky trailing edge to underwing.

HERRING GULL
Larger; red spot only on lower mandible; yellow eye; creamy pink legs and feet; lacks dusky trailing edge to underwing; lighter gray back and upperwings.

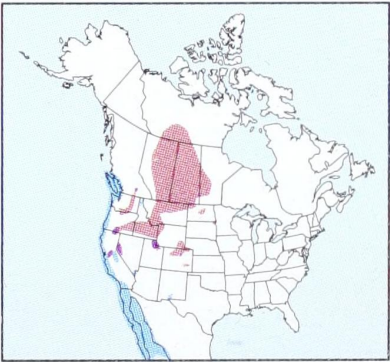
Flight Pattern

Strong direct flight with deep wing beats. Soars on thermals and updrafts.

Nest Identification

Shape Location

Twigs, dried feathers, bits of debris, grass, and weeds; 14–18 inches • on ground • built by both sexes • 2–3 olive-buff eggs, often blotched with deep grays and browns; oval to short oval; if third egg is laid, shape is short, subelliptical; 2.8 inches long.



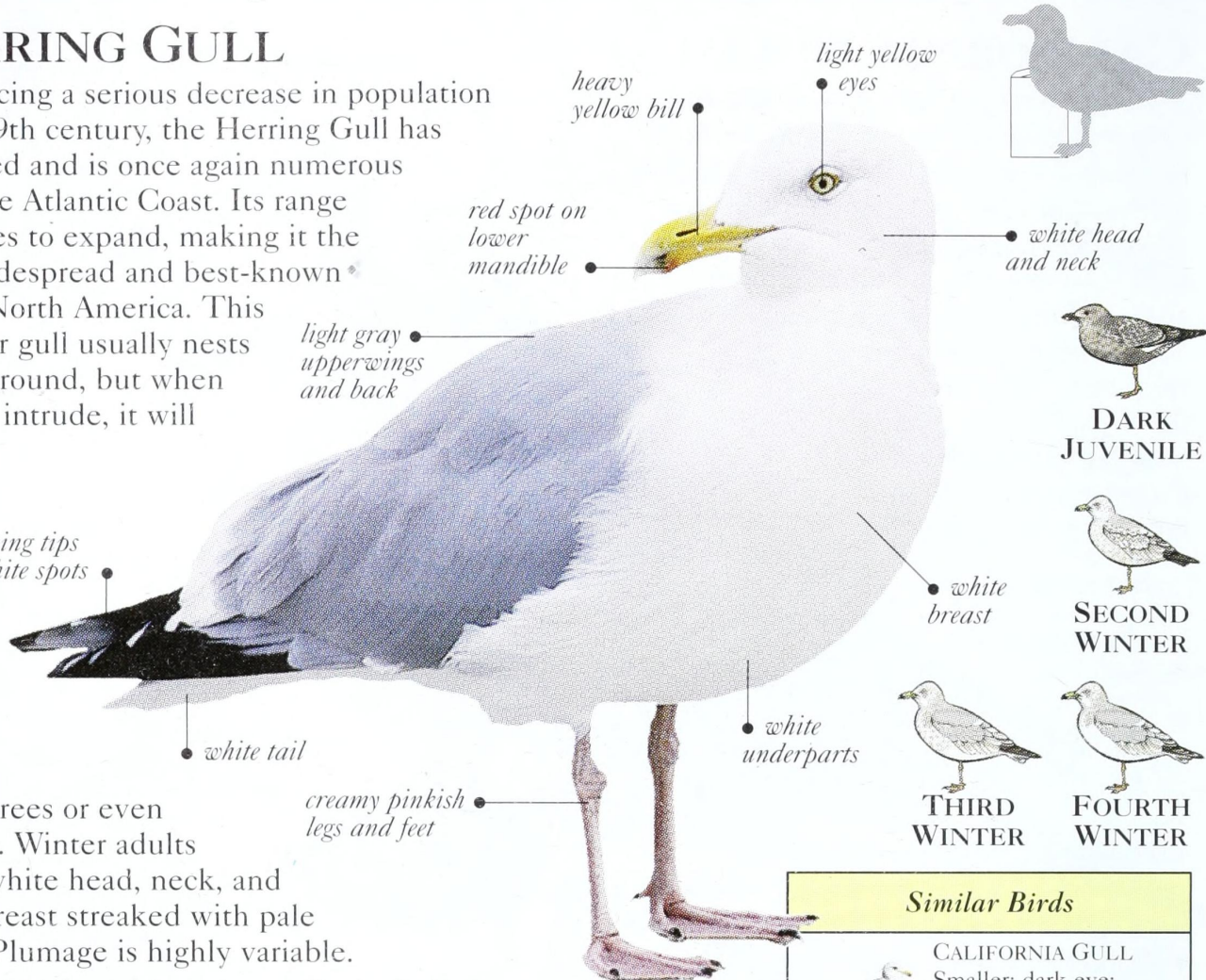
Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.4 pounds
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DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Larus argentatus</i>	Length 22–26 inches	Wingspan 54–58 inches
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HERRING GULL

After facing a serious decrease in population in the 19th century, the Herring Gull has recovered and is once again numerous along the Atlantic Coast. Its range continues to expand, making it the most widespread and best-known gull in North America. This four-year gull usually nests on the ground, but when humans intrude, it will



choose trees or even rooftops. Winter adults have a white head, neck, and upper breast streaked with pale brown. Plumage is highly variable.

- **SONG** Noisy with various calls, including loud *cleew cleew*, strident *kyow*, or trumpetlike *kee-ou, kee-ou*. Also has alarm call of *kek-kek-kek* or *hyiah-hyak*.
- **BEHAVIOR** Opportunistic. Often follows ships in sea lanes to feed on refuse thrown overboard. Along seacoasts eats fish, wide variety of marine invertebrates, refuse, carrion, and algae. On land eats worms, insects and insect larvae, berries, rodents, and eggs and young of other birds. Active forager. Like other gulls, carries hard-shelled mollusks into the air, then drops them on hard surface to break open shells. Sometimes steals food from other birds. Frequents garbage dumps.
- **BREEDING** Monogamous. Colonial.

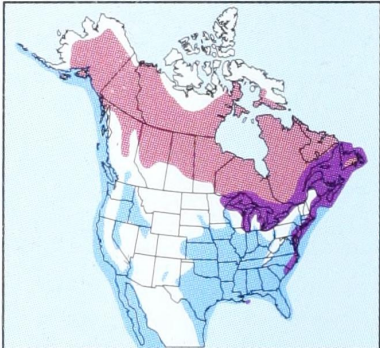
Similar Birds



CALIFORNIA GULL
Smaller; dark eye; red spot edged with black on lower mandible; darker gray mantle and wings; dusky trailing edge on underwing; yellow-green legs and feet.



RING-BILLED GULL
Smaller yellow bill has black subterminal ring; greenish yellow legs.



Flight Pattern

Strong steady flight with deep wing beats. Soars on thermals and deflected updrafts.

Nest Identification

Shape

Location

- **NESTING** Incubation 23–27 days by both sexes. Semiprecocial young stay around nest 24–49 days. Fed by both sexes. 1 brood per year.
- **POPULATION** Abundant. Today all gulls are protected by federal law.

Lined with weeds, grass, and seaweed • on ground sheltered by shrubs or rock, in tree, or on roof • 2–3 gray, green, bluish, or brown eggs with brown, lavender, and black streaks; ovoid, 2.6–3 x 1.8–2.2 inches.

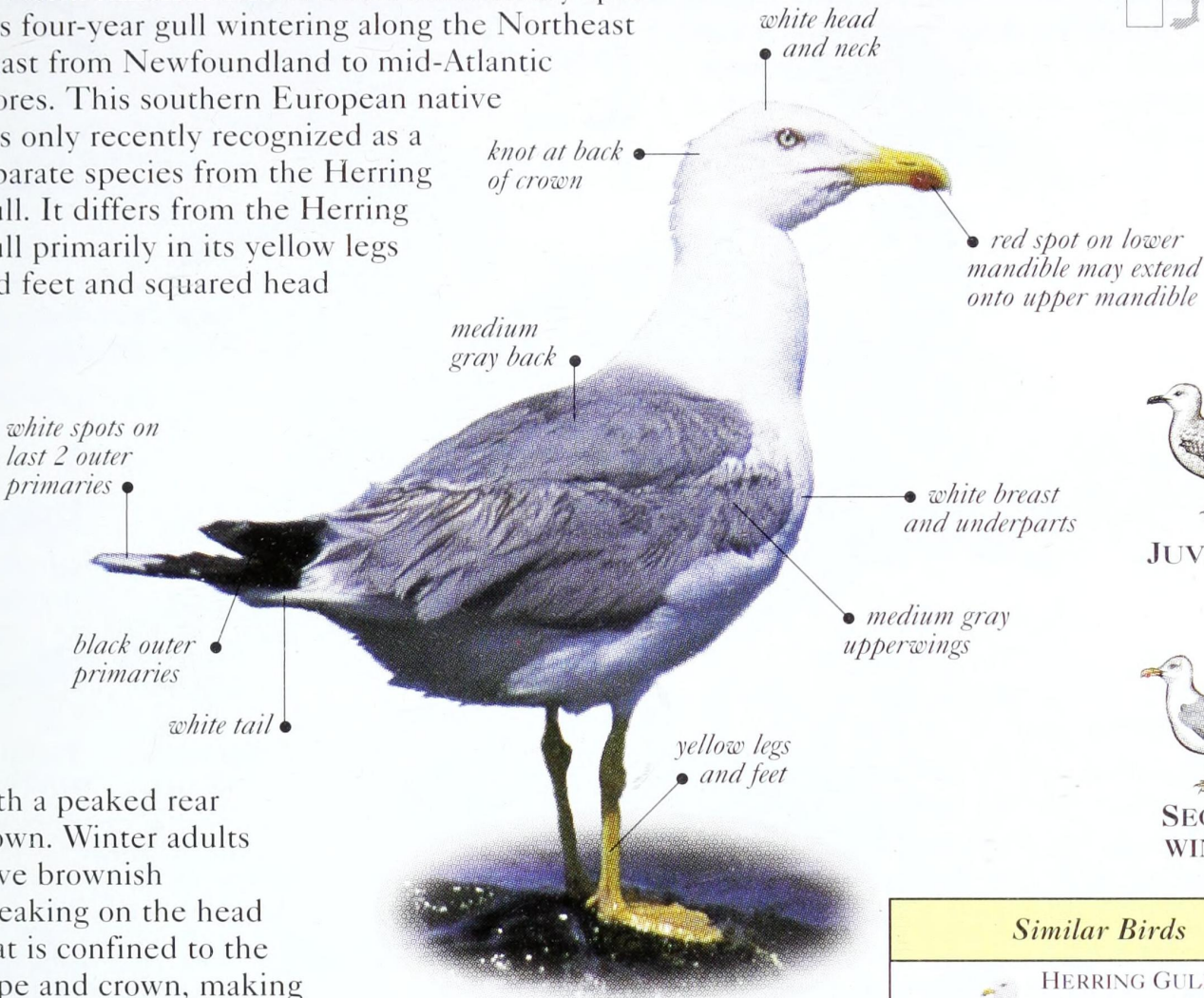
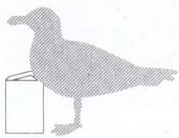
Plumage Sexes similar	Habitat	Migration Migratory	Weight 2.7 pounds
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DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Larus cachinnans</i>	Length 24 inches	Wingspan 54–57 inches
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YELLOW-LEGGED GULL

In North America birdwatchers occasionally spot this four-year gull wintering along the Northeast Coast from Newfoundland to mid-Atlantic shores. This southern European native was only recently recognized as a separate species from the Herring Gull. It differs from the Herring Gull primarily in its yellow legs and feet and squared head



JUVENILE



SECOND WINTER

with a peaked rear crown. Winter adults have brownish streaking on the head that is confined to the nape and crown, making the head appear whiter.

- **SONG** *Kee-yow*, similar to that of the Herring Gull; also has wide range of other calls.
- **BEHAVIOR** Eats small fish, crustaceans, mollusks, refuse, carrion, and young and eggs of other birds. Wades into water or makes shallow dives while flying to catch food. Drops hard-shelled items in flight to break them open. Steals food from other birds. Scavenger. Sometimes hovers.
- **BREEDING** Monogamous. Colonial.

Similar Birds



HERRING GULL
More rounded head; longer thinner beak; lighter gray upperparts; more black on outermost primaries; creamy pink legs and feet • winter adults have more extensive brown streaking on the head, neck, and upper breast.

- **NESTING** Incubation 28–30 days by both sexes. Young stay in nest 35–45 days, fed by both sexes. 1 brood per year.
- **POPULATION** Casual winter visitor on northern and middle Atlantic Coast. Common in western Europe and Africa.



Flight Pattern

Strong direct flight with steady deep wing beats. Rides thermals and updrafts.

Nest Identification

Shape

Location

Various debris, grasses, and feathers • built by both sexes • 3 buff or olive eggs marked with brown, black, or darker olive; ovoid, 2.8 x 2 inches.

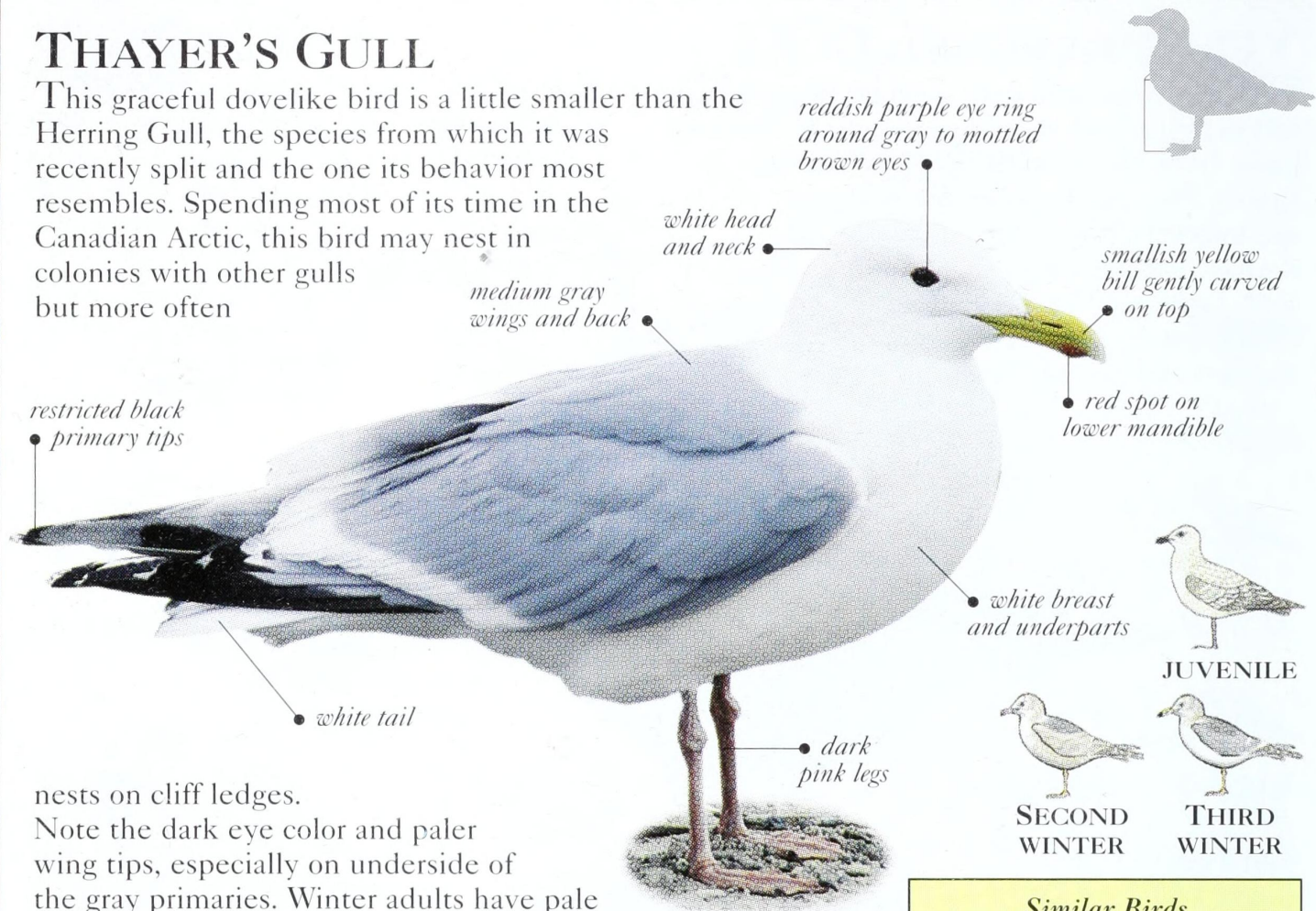
Plumage Sexes similar	Habitat	Migration Migratory	Weight 2.8 pounds
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DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Larus thayeri</i>	Length 23–25 inches	Wingspan 55 inches
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THAYER'S GULL

This graceful dovelike bird is a little smaller than the Herring Gull, the species from which it was recently split and the one its behavior most resembles. Spending most of its time in the Canadian Arctic, this bird may nest in colonies with other gulls but more often



• nests on cliff ledges. Note the dark eye color and paler wing tips, especially on underside of the gray primaries. Winter adults have pale brown streaking on the head, neck, and upper breast. A four-year bird, it is difficult to separate from the Herring Gull, and its taxonomy is still disputed: Some still consider it a race of the Herring Gull, while others think it is a subspecies of the Iceland Gull.

- **SONG** A familiar *kee-yow*; a loud *kuc-kuc-kuc-kuc-kuckle-kuckle* or *hiyak, hiyak, hiyak-hiyak*. Mewing squeals.
- **BEHAVIOR** Eats small fish, mollusks, crustaceans, carrion, refuse, berries, and young and eggs of other birds. Finds food by diving in shallow water, plunging while flying, and foraging while walking on shore.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 23–27 days by both sexes.

Flight Pattern

Strong direct flight with steady deep wing beats. Sometimes soars on thermals or updrafts.

Semiprecocial young stay around nest 24–29 days. Fed by both sexes. 1 brood per year.

- **POPULATION** Uncommon. Winters primarily on West Coast. Rare to casual on Great Lakes, East Coast, and in interior in winter.

Nest Identification

Shape

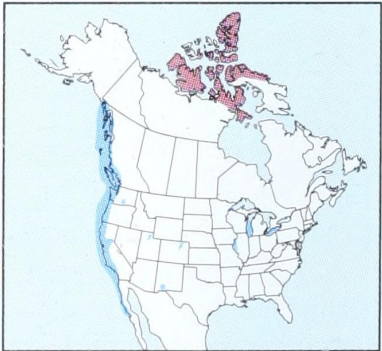
Location

Lined with weeds, grasses, and leaves • on bare ground sheltered by rock or shrubbery • built by both sexes • 2–3 gray, green, or brown eggs; ovate, 2.8 x 2.1 inches.

Similar Birds

HERRING GULL
Larger; yellow eyes with orange orbital ring; lighter gray mantle; darker-tipped primaries on upperparts and underparts; paler legs and feet; heavier bill.

ICELAND GULL
Lighter gray mantle; usually yellow (sometimes brown) eyes; translucent pale wing tips.



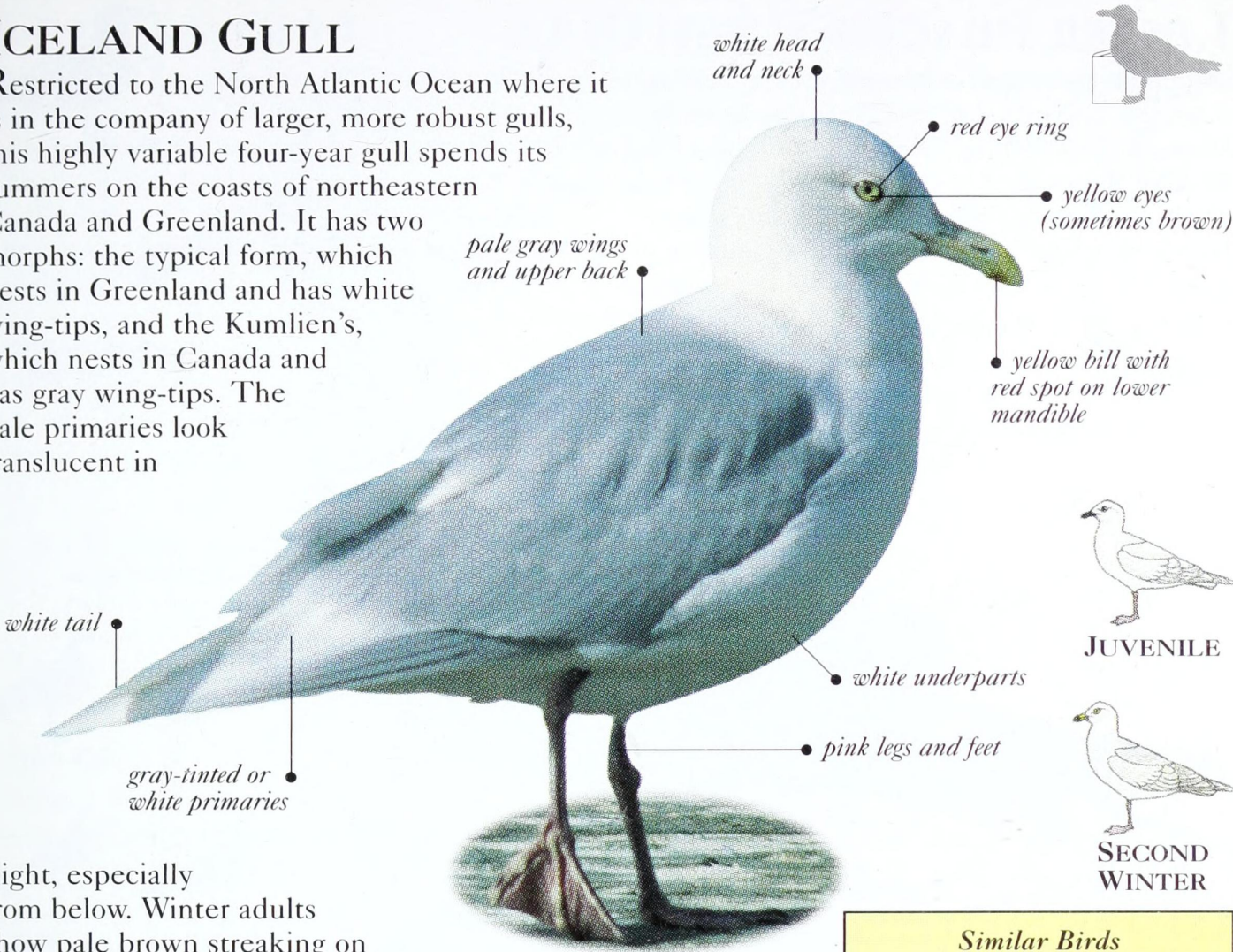
Plumage Sexes similar	Habitat	Migration Migratory	Weight 2.4 pounds
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DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Larus glaucoides</i>	Length 23–25 inches	Wingspan 54 inches
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ICELAND GULL

Restricted to the North Atlantic Ocean where it is in the company of larger, more robust gulls, this highly variable four-year gull spends its summers on the coasts of northeastern Canada and Greenland. It has two morphs: the typical form, which nests in Greenland and has white wing-tips, and the Kumlien's, which nests in Canada and has gray wing-tips. The pale primaries look translucent in



flight, especially from below. Winter adults show pale brown streaking on the head, neck, and upper breast.

- **SONG** Call of *clew, clew, clew* or *kak-kak-kak*, similar to that of the Herring Gull.
- **BEHAVIOR** Eats small fish, crustaceans, berries, mollusks, carrion, refuse, seeds, and eggs and young of other birds. Catches fish by plunging into water while flying. Also finds food while wading or walking on shore. Often feeds with Herring Gulls and nests in mixed colonies with other gulls.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 23–27 days by both sexes.

Semiprecocial young stay around nest 24–29 days; tended by both sexes. 1 brood per year.

Flight Pattern

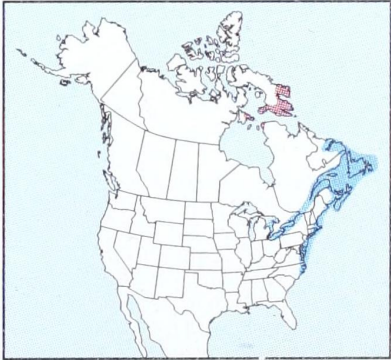
Direct flight with strong steady deep wing beats on long wings. Soars on thermals and updrafts.

- **POPULATION** Uncommon to rare on East Coast and Great Lakes in winter. Casual to Gulf Coast and Pacific Coast in winter. Rare inland. Breeding populations stable and perhaps are increasing.

Similar Birds

THAYER'S GULL
Darker mantle; brown eyes with reddish purple orbital ring; darker wing tips, especially on upperparts.

GLAUCOUS GULL
Proportionally larger bill; larger overall; pale eyes with yellow eye ring; white wing tips.



Nest Identification

Shape

Location

Grass, moss, and various rubbish • on hillock near shelter • 2–3 buff to olive eggs with dark brown blotches; ovate, 2.7 inches long.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.9 pounds
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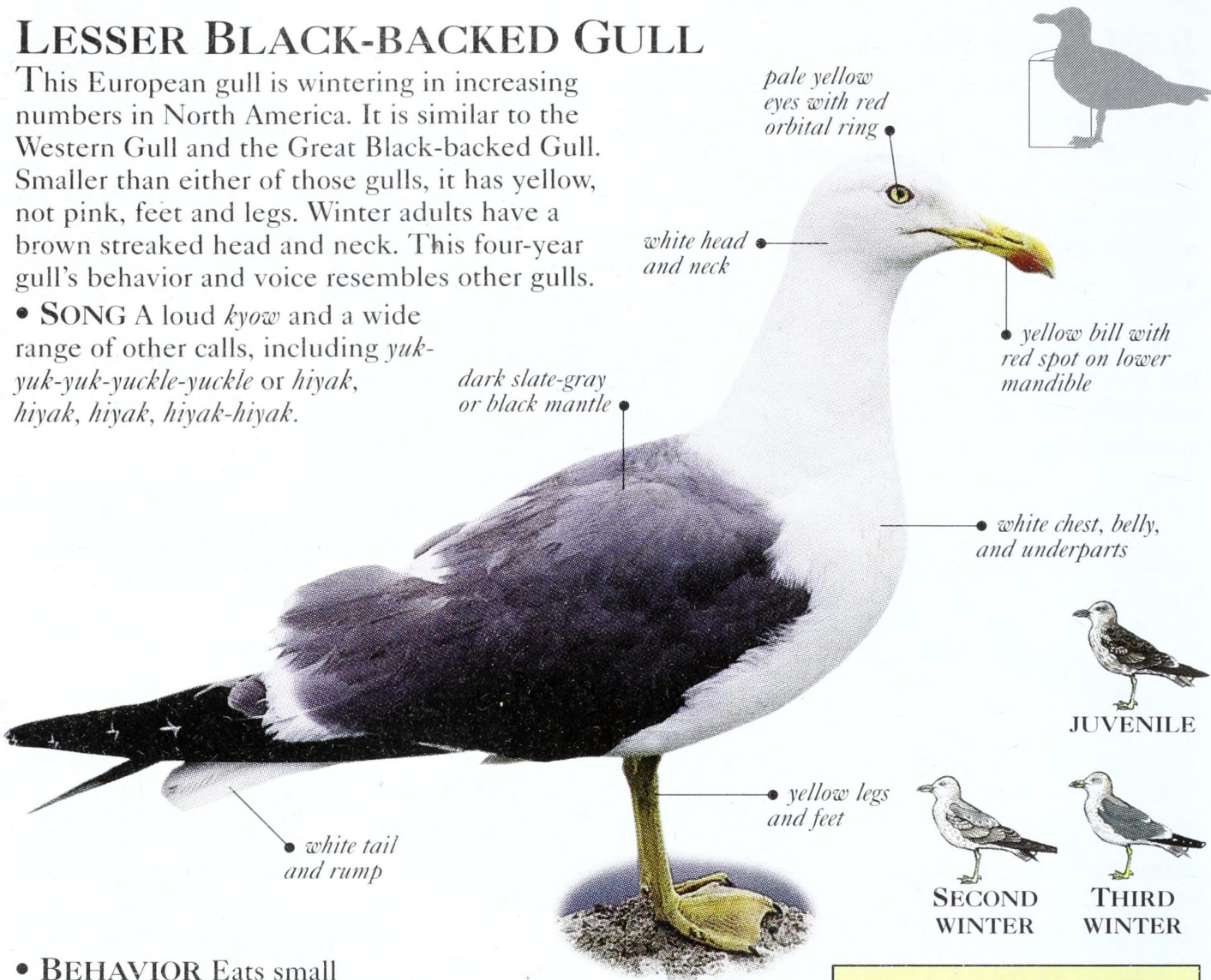
DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Larus fuscus</i>	Length 21–22 inches	Wingspan 54 inches
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LESSER BLACK-BACKED GULL

This European gull is wintering in increasing numbers in North America. It is similar to the Western Gull and the Great Black-backed Gull. Smaller than either of those gulls, it has yellow, not pink, feet and legs. Winter adults have a brown streaked head and neck. This four-year gull’s behavior and voice resembles other gulls.

• **SONG** A loud *kyow* and a wide range of other calls, including *yuk-yuk-yuk-yuckle-yuckle* or *hiyak*, *hiyak*, *hiyak*, *hiyak-hiyak*.



• **BEHAVIOR** Eats small fish, seaweed, wide variety of marine invertebrates, insects, refuse, carrion, and eggs and young of other birds. Finds food by wading, swimming, and plunging to ocean’s surface while flying. Also steals food from other birds. Scavenges.

• **BREEDING** Monogamous. Colonial.

• **NESTING** Incubation 24–27 days by both sexes. Semiprecocial young climb out of nest after a few days and explore surrounding area. Fed by both sexes. First flight at 30–40 days. 1 brood per year.

Flight Pattern

Direct flight with strong steady, deep wing beats on long wings. Sometimes soars on thermals and updrafts.

Nest Identification

Shape

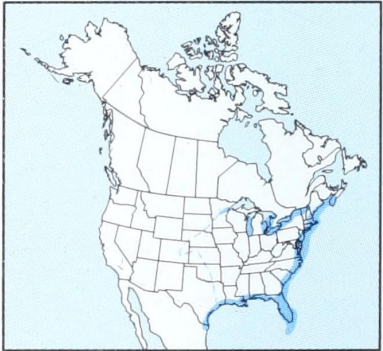
Location

• **POPULATION** Rare to uncommon in eastern North America; casual in the interior around the Great Lakes and on the West Coast to Alaska. Common to fairly common in western Europe and Eurasia.

Similar Birds

GREAT BLACK-BACKED GULL
Larger; pink legs and feet; darker wings and mantle.

WESTERN GULL
Larger; pink legs and feet.



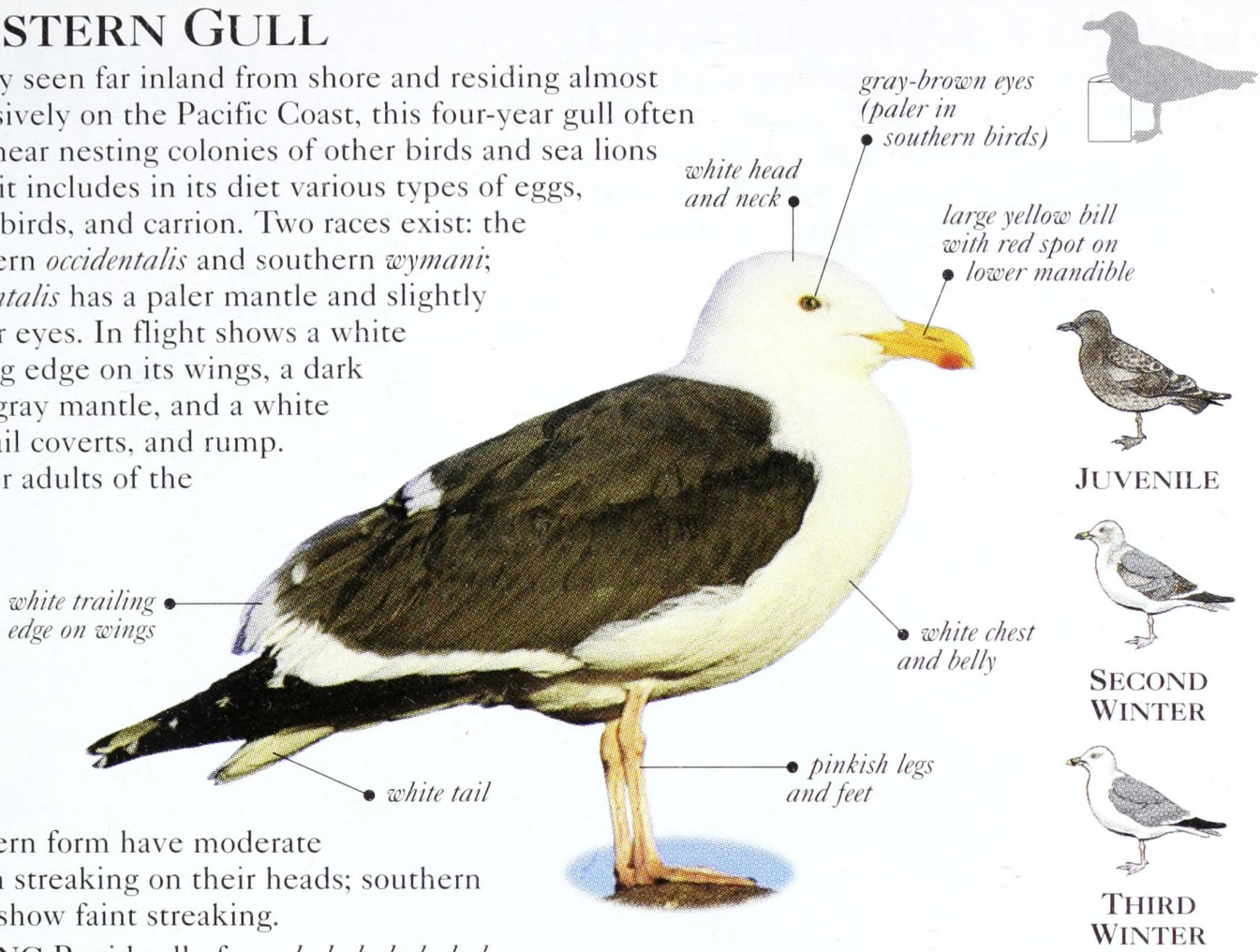
Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.7 pounds
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DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Larus occidentalis</i>	Length 24–27 inches	Wingspan 54–58 inches
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WESTERN GULL

Rarely seen far inland from shore and residing almost exclusively on the Pacific Coast, this four-year gull often lives near nesting colonies of other birds and sea lions since it includes in its diet various types of eggs, small birds, and carrion. Two races exist: the northern *occidentalis* and southern *wymani*; *occidentalis* has a paler mantle and slightly darker eyes. In flight shows a white trailing edge on its wings, a dark slate-gray mantle, and a white tail, tail coverts, and rump. Winter adults of the



northern form have moderate brown streaking on their heads; southern birds show faint streaking.

- **SONG** Rapid call of *quock, kuk, kuk, kuk*.
- **BEHAVIOR** Inhabits coastal areas. Eats fish, a great variety of marine invertebrates, carrion, refuse, small mammals, and eggs and young of other birds. Catches fish by diving from the air to the water's surface, or by wading in water. Harasses cormorants and pelicans to force them to disgorge their catch. Drops hard shellfish in flight to ground to break shell. Follows fishing boats. Commonly found around seacoast towns and on wharves, jetties, docks, pillions, buildings, and moored ships.
- **BREEDING** Monogamous. Colonial. On offshore islands.
- **NESTING** Incubation 25–32 days by both sexes, mostly female. Semiprecocial young stay around nest 29–32 days. Fed by both sexes. 1 brood per year.

Similar Birds



GLAUCOUS-WINGED GULL
Lighter mantle; gray primaries; yellow eyes with red orbital ring.



YELLOW-FOOTED GULL
Slightly larger; yellow legs and feet; lighter mantle • ventures inland only to Salton Sea, California.

Flight Pattern



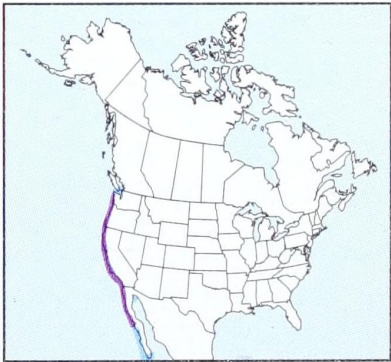
Direct flight with strong, steady wing beats. Often soars to great heights on updrafts along coastal sea cliffs.

Nest Identification

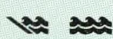
Shape 

Location 

- **POPULATION** Common. Stable along Pacific Coast from Baja to southern British Columbia. Casual north to southern Alaska. Rare inland.
- **CONSERVATION** Vulnerable to pollution of coastal marine environment.



Moss, weeds, and grass • on ground near ridge of rock or sand • built by both sexes • 1–6 buff to olive-gray eggs with dark brown blotches; ellipsoid to ovoid, 2.6–3 inches x 1.9–2 inches.

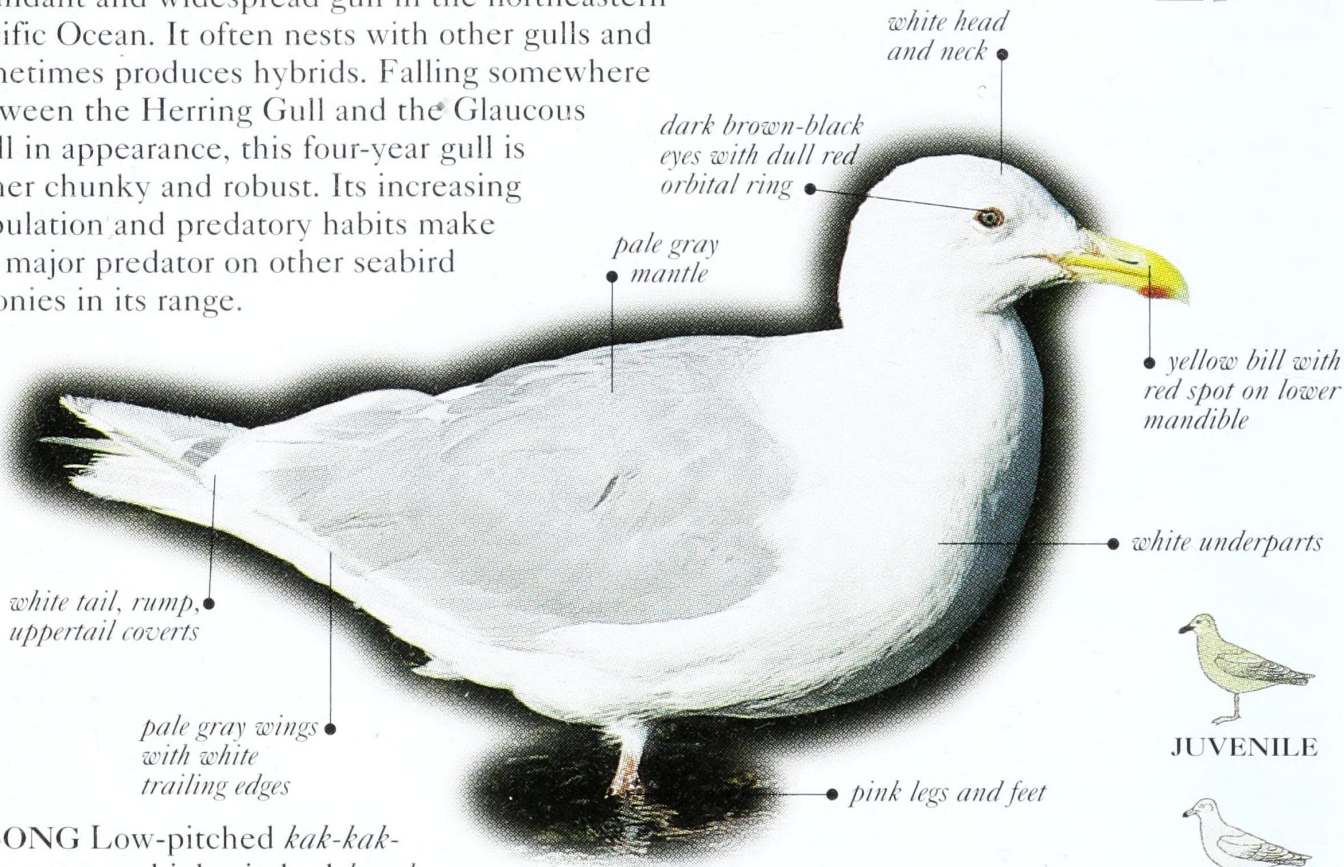
Plumage Sexes similar	Habitat 	Migration Nonmigratory	Weight 2.2 pounds
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DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Larus glaucescens</i>	Length 24-27 inches	Wingspan 54-58 inches
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GLAUCOUS-WINGED GULL

Its name is derived from the Greek word *glaukos*, which means blue-gray or bluish. This bird is the most abundant and widespread gull in the northeastern Pacific Ocean. It often nests with other gulls and sometimes produces hybrids. Falling somewhere between the Herring Gull and the Glaucous Gull in appearance, this four-year gull is rather chunky and robust. Its increasing population and predatory habits make it a major predator on other seabird colonies in its range.



JUVENILE



SECOND WINTER

- **SONG** Low-pitched *kak-kak-kak* or *wow* or high-pitched *keer-keer*.
- **BEHAVIOR** Marine and coastal. Eats refuse, small fish, variety of marine invertebrates, carrion, small mammals, plant material, and eggs and young of other birds. Like most gulls wades in water to find food or dives into water while flying. Also scavenges through refuse; steals food from other birds; and takes leftovers of seals, whales, and humans. Tends fishing trawlers.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 26-29 days by both sexes. Semiprecocial young may leave nest soon after hatching but remain in vicinity. Fed by both sexes. First flight at 37-53 days. Young leave colony 2 weeks after flight. 1 brood per year.

Similar Birds



GLAUCOUS GULL
Larger; paler mantle; pale eyes.



WESTERN GULL
Darker mantle; white-tipped black primaries.



Flight Pattern

Powerful direct flight with slow measured wing beats. Often soars on updrafts.

Nest Identification

Shape Location

- **POPULATION** Common and increasing in number. Rare inland in Pacific states. Casual in Great Lakes.
- **CONSERVATION** Vulnerable to pollution of marine environment, including oil spills.

Lined with seaweed, grasses, moss, and debris • hidden in grass or weeds; sometimes sheltered by rock or cliff • built by both sexes • 1-4 olive to yellow-green eggs marked with brown and gray; subelliptical, 2.8 x 2 inches.

Plumage Sexes similar	Habitat	Migration Most do not migrate	Weight 2.2 pounds
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DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Larus hyperboreus</i>	Length 26–30 inches	Wingspan 56–60 inches
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GLAUCOUS GULL

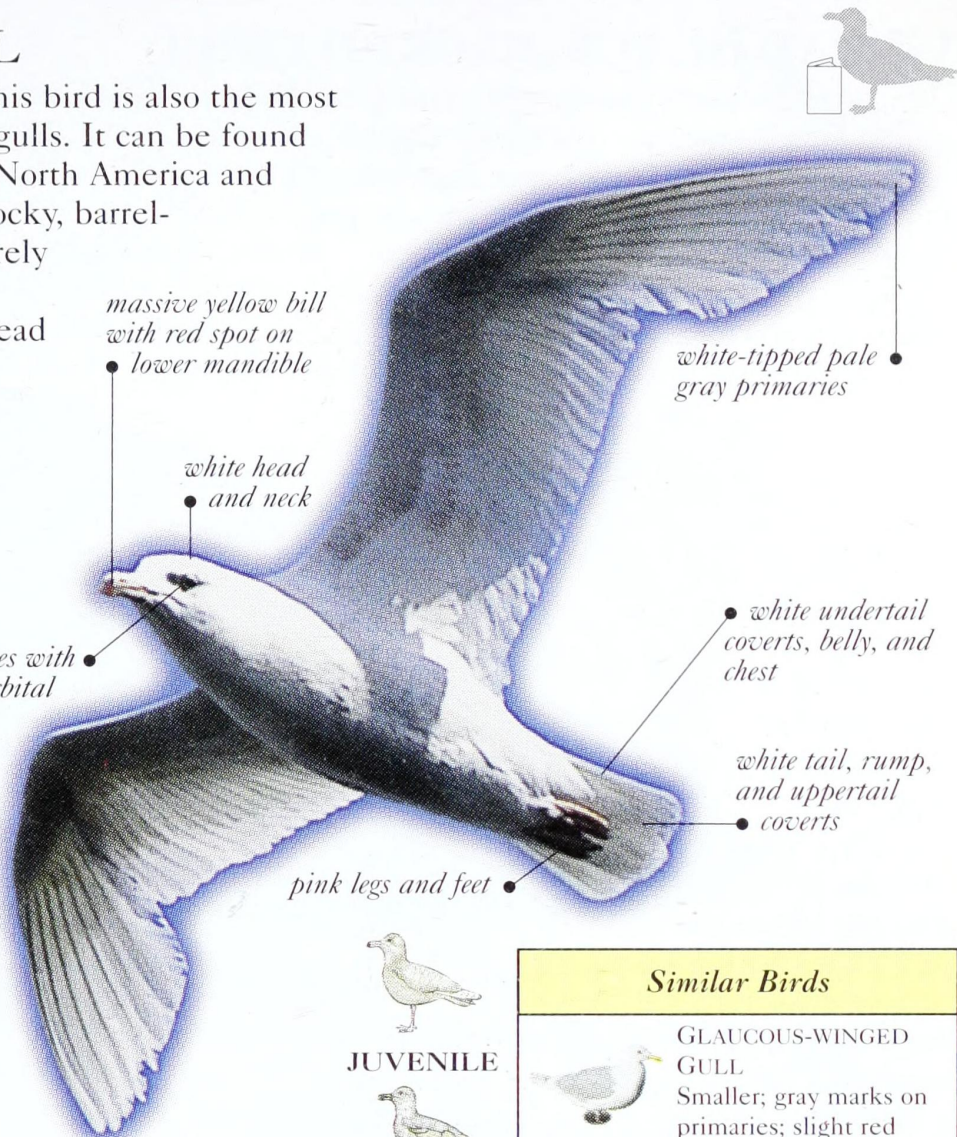
The palest of the large gulls, this bird is also the most northerly breeder of the *Larus* gulls. It can be found nesting on the Arctic coasts of North America and Greenland. A heavy-bodied, stocky, barrel-chested gull, its short wings barely extend beyond the tail when standing. Winter adults show head and neck lightly streaked pale brown. This is a four-year gull.

• **SONG** Usually silent. While flying, makes a prattling-like quack. Also has various shrieking cries, similar to those of Herring Gull.

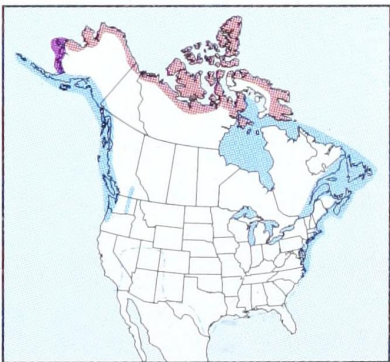
• **BEHAVIOR** Marine habits. Predatory and aggressive, especially in summer when it feeds primarily on eggs and young of other birds, especially ducks, alcids, shorebirds, and gulls. Also eats fish, marine invertebrates, refuse, insects, and berries. Major predator on lemmings and other small mammals during their peak population cycles. Steals food from other seabirds. Also finds food by wading in water and diving to surface while flying. Catches smaller birds and insects in air.

• **BREEDING** Monogamous. Colonial.
• **NESTING** Incubation 27–28 days by both sexes. Semiprecocial young leave nest within days of hatching, but remain in vicinity. Fed by both sexes. Independent soon after first flight at 45–50 days. Usually 1 brood per year.

• **POPULATION** Common on breeding grounds. Closely tied to lemming population near its nesting grounds. Uncommon to fairly common in winter on the north Atlantic and north Pacific Coasts. Rare south and inland.



Similar Birds	
	GLAUCOUS-WINGED GULL Smaller; gray marks on primaries; slight red ring around dark eye; bill more slender.
	ICELAND GULL Smaller in size; pale gray primaries with translucent white tips (Kumlien's form has darker gray tips to translucent primaries); yellow eye with red orbital ring.



Flight Pattern	
Lumbers along with slow steady wing beats on short wings. Soars on thermals and updrafts.	

Nest Identification	
Shape	Location

Lined with seaweed, moss, feathers, and debris • on ground or set on ridges of cliffs, often on small pile of grass or moss • built by both sexes • 2–3 eggs, light brown or olive-buff, with dark brown blotches; subelliptical to ovate, 3.0 inches long.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 3.4 pounds
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DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Larus marinus</i>	Length 28–31 inches	Wingspan 60–66 inches
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GREAT BLACK-BACKED GULL

This predatory and domineering bird is the largest gull in North America. It is highly aggressive toward other birds but will nest harmoniously in colonies with other gulls. A four-year gull, it frequents the northern Atlantic Coast of North America. The adult is snow-white below with a black mantle and upperwings. Winter adults have very little streaking on the white head and nape. In all plumages it has pink legs and feet. The prevalence of garbage dumps in coastal areas has led to an increase in population of this species.

• SONG

Usually silent. On breeding grounds utters low slow screeching *keeeeeeee-aaaahh*. Also makes throaty laughing call of *hah-hah-hah* or deep *owk, owk*.

• **BEHAVIOR** Pugnacious. Predatory and opportunistic. Eats carrion, fish, refuse, eggs and young of other birds, mollusks, crustaceans, rodents, berries, and insects. May take prey as large as gulls, cormorants, and rabbits. Steals food from other birds and scavenges on beaches. Wades in water to feed. Dives to surface while flying to catch food.

• **BREEDING** Monogamous. Colonial but occasionally solitary.

• **NESTING** Incubation 26–29 days by both sexes. Fed by both sexes. Semiprecocial young may wander from nest but stay close to parents. First flight at 49–56 days. 1 brood per year.

• **POPULATION** Fairly common; has increased in number since 1930s. Range expanding southward along Atlantic Coast. Fairly common on the eastern Great Lakes but rare on the western ones; casual inland in the East in winter; accidental to casual elsewhere.

Flight Pattern





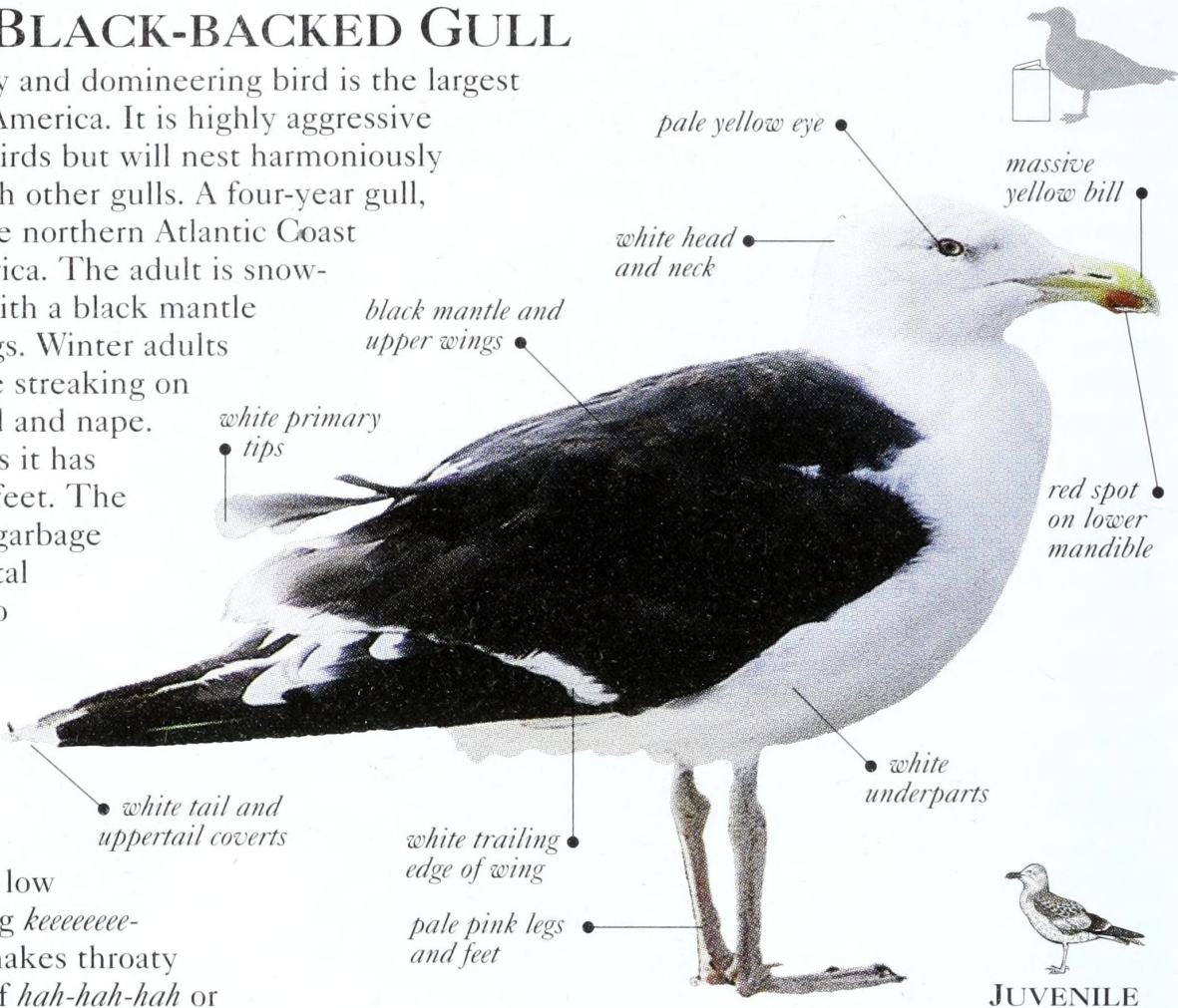
Heavy powerful direct flight with slow deep wing beats. Soars on thermals or deflected updrafts.

Nest Identification

Shape 

Location 

Made of grasses, seaweed, moss, feathers, debris, and sticks • on ground atop small pile of grasses or seaweed, often sheltered in ridges of cliff • built by both sexes • 2–3 buff, olive, or brown eggs with brown spots; ovoid, 3.1 inches long.



JUVENILE



SECOND WINTER

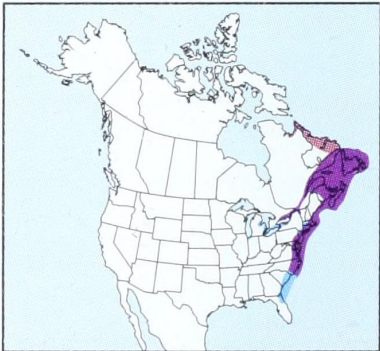


THIRD WINTER

Similar Birds



LESSER BLACK-BACKED GULL
Smaller; yellow legs.



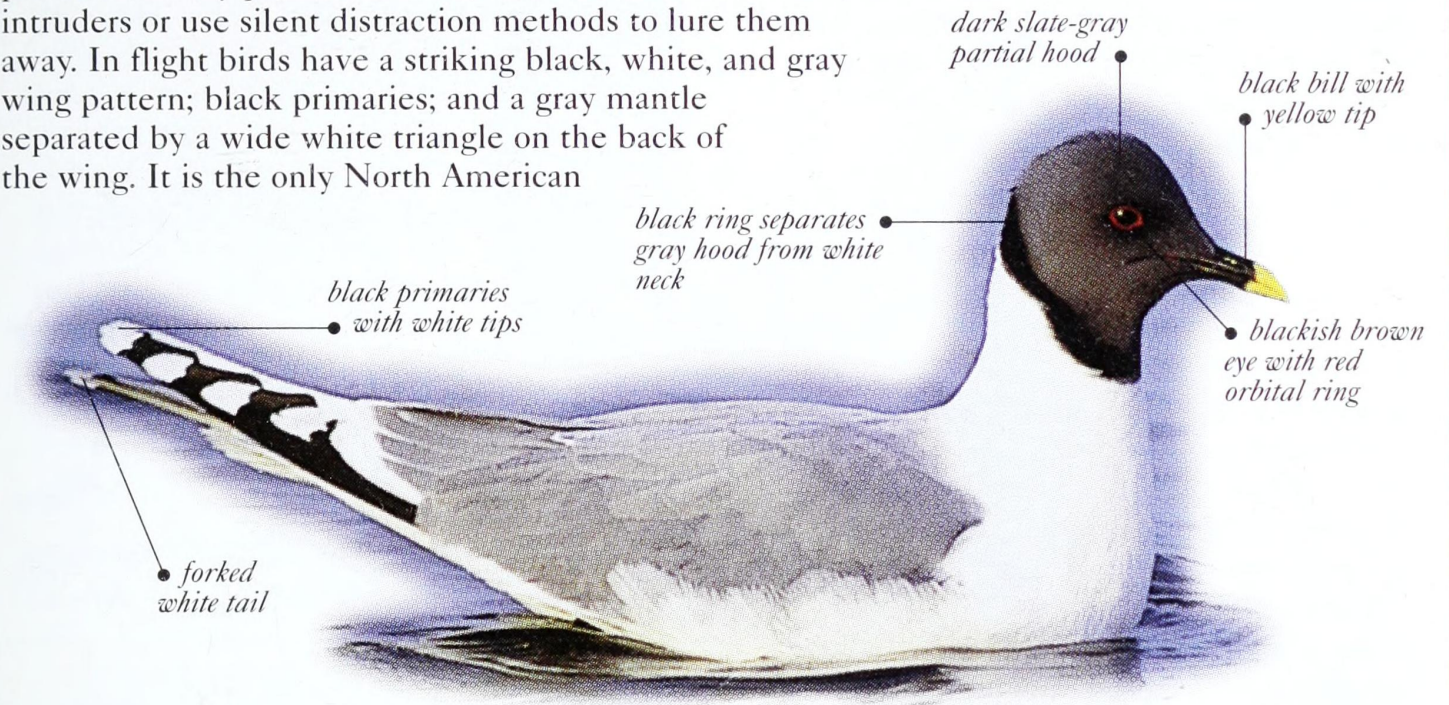
Plumage Sexes similar	Habitat 	Migration Most do not migrate	Weight 4.0 pounds
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DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Xema sabini</i>	Length 13–14 inches	Wingspan 33–36 inches
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SABINE’S GULL

This two-year gull summers near the Arctic coasts of North America, but after nesting season it is rarely spotted from shore because it spends most of its time at sea. Nesting in the tundra, parents are very protective of the nest and will attack intruders or use silent distraction methods to lure them away. In flight birds have a striking black, white, and gray wing pattern; black primaries; and a gray mantle separated by a wide white triangle on the back of the wing. It is the only North American



gull with a distinctly forked tail. Winter adults have a white head with dusky gray on the back of the crown and nape.

- **SONG** Short, harsh ternlike cry of *creeeeee*.
- **BEHAVIOR** Largely pelagic. Eats insects, fish, crustaceans, mollusks, and marine worms in breeding season; otherwise, eats mostly fish. Runs along mudflats like a plover searching for food. Also feeds by dipping to water’s surface from flight and foraging while swimming.
- **BREEDING** Monogamous. Small colonies. Often in company of Arctic Terns.
- **NESTING** Incubation 23–26 days by both sexes. Semiprecocial young. Shortly after hatching, nestlings led to water by parents. Young feed themselves. First flight at about 35 days. 1 brood per year.



JUVENILE



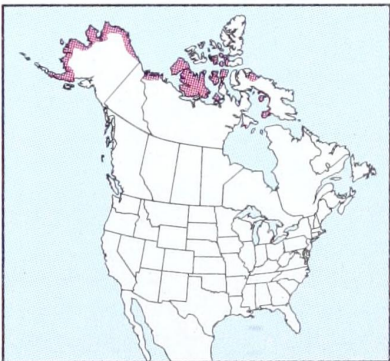
WINTER ADULT

Similar Birds



BONAPARTE’S GULL
Black bill; black hood; orange legs and feet; white outer primaries form triangle at wing tip; square tail.

- **POPULATION** Common on breeding grounds. Winters at sea mainly in Southern Hemisphere. Common migrant well off West Coast; casual on and off East Coast. Rare to casual in migration in interior of the West and on Great Lakes.



Flight Pattern

Ternlike airy flight with continuous wing beats, a few glides, and numerous dives. Also hovers.

Nest Identification

Shape Location

Seaweed, grasses, moss, and feathers • on ground atop pile of vegetation near water • may be built by both sexes • 1–3 olive-buff eggs spotted with darker olive-brown and occasionally wreathed; ovate to subelliptical, 1.8 inches long.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 7.2 ounces
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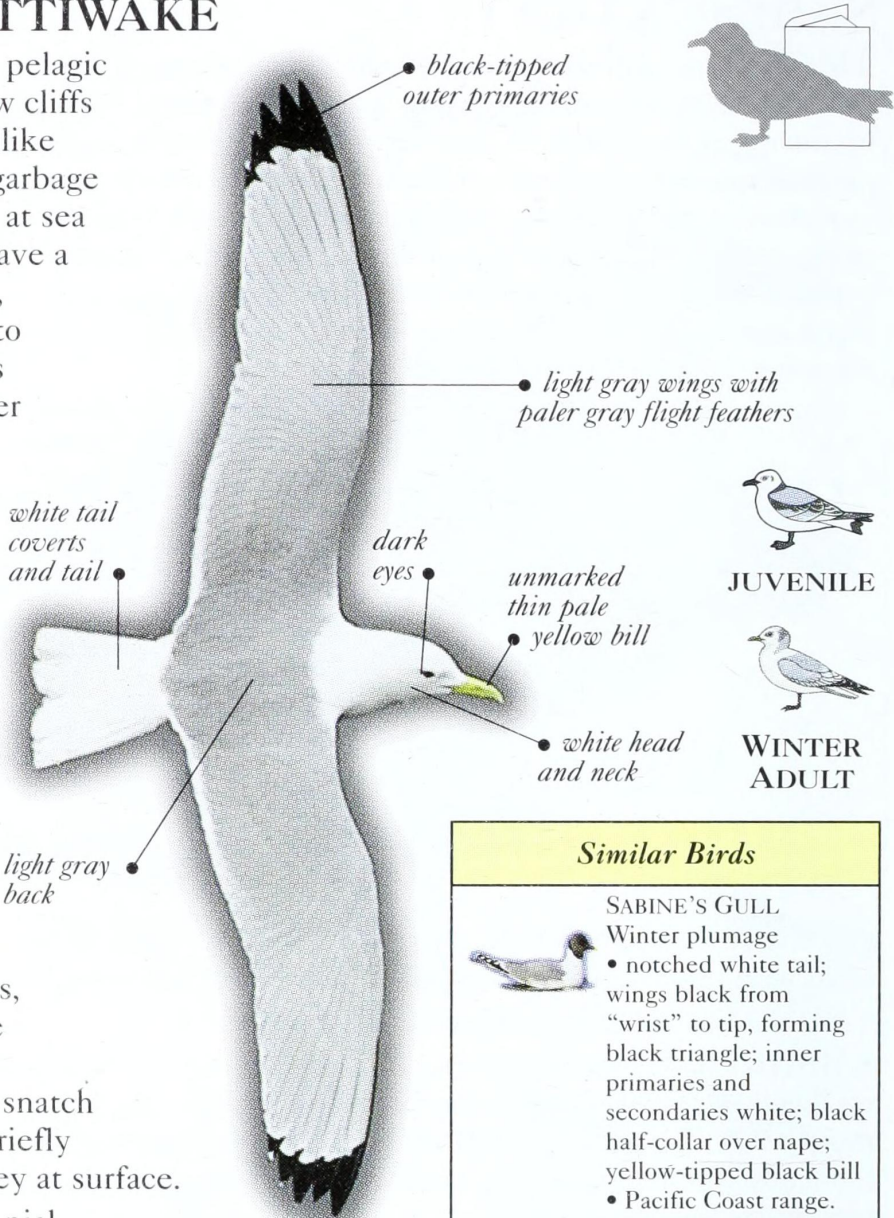
DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Rissa tridactyla</i>	Length 16–17 inch	Wingspan 36 inches
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BLACK-LEGGED KITTIWAKE

Named for its call of *kittiwake*, this pelagic three-year gull nests on high narrow cliffs on Arctic and sub-Arctic coasts. Unlike most gulls it does not scavenge at garbage dumps but spends most of its time at sea and drinks only saltwater. Adults have a white body, gray mantle and wings, pale whitish underwings, a square to slightly notched tail, and black legs and feet. The black tips of the outer primaries lack white spotting and produce a clean, straight-edged dark tip. Winter adults show a dark smudge across the nape. Juveniles have a black collar across the back of the neck, a black-tipped tail, and a black W stretching from wing tip to wing tip across the back.

- **SONG** Series of piercing *kittiwake*'s. Also makes quieter *ock-ock-ock*.
- **BEHAVIOR** Pelagic outside breeding season. Eats primarily small fish but also takes crustaceans, mollusks, squid, insects, and refuse from ships. Forages for food while swimming and dips while flying to snatch items from surface. Often hovers briefly above water before dropping on prey at surface.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 25–32 days by both sexes. First flight at 34–58 days. Young return to nest at night after first flight and are fed by both sexes. 1 brood per year.
- **POPULATION** Abundant on breeding grounds. In migration and winter common to uncommon on open ocean; usually not seen from shore in the East, seen uncommonly in the West. Casual to accidental inland in winter.



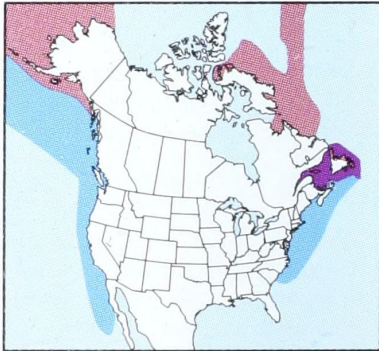
Similar Birds



SABINE'S GULL
Winter plumage
• notched white tail; wings black from "wrist" to tip, forming black triangle; inner primaries and secondaries white; black half-collar over nape; yellow-tipped black bill
• Pacific Coast range.



RED-LEGGED KITTIWAKE
Bright reddish coral legs; shorter broader bill; darker upperparts
• Pacific Coast range.



Flight Pattern	
Buoyant graceful swift flight with rapid wing beats and shallow strokes alternating with several rapid wing beats and a glide.	
Nest Identification	
Shape	Location

• **CONSERVATION** Large nesting colonies vulnerable to human disturbance.

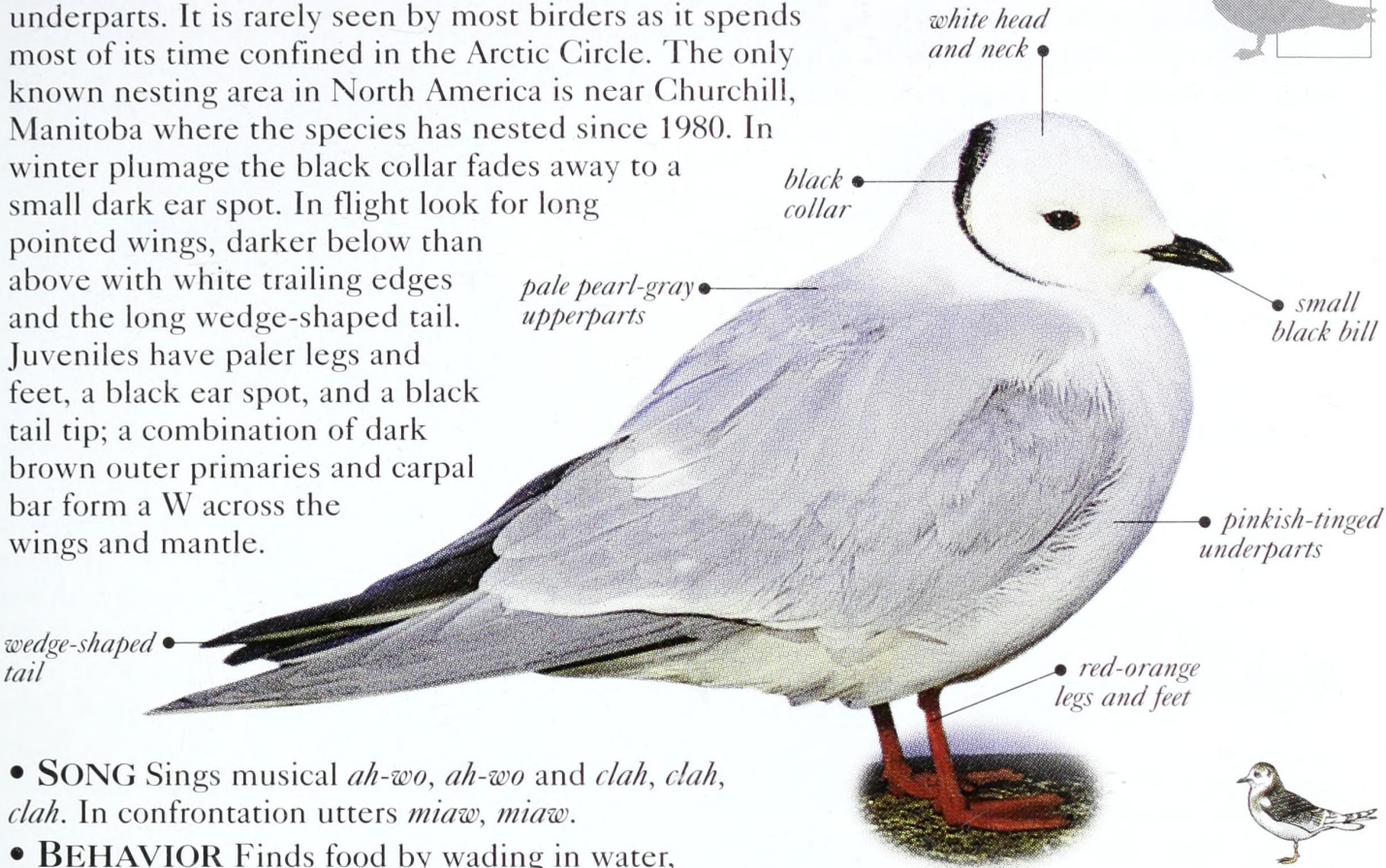
Mud, seaweed, moss, and sod • on cliff ledge, side of building, or in cave • built by both sexes with materials brought by male • 1–3 buff to olive or pale blue eggs with brown or gray speckles; subelliptical, 2.2 x 1.6 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 14.9 ounces
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Family LARIDAE	Species <i>Rhodostethia rosea</i>	Length 13–14 inches	Wingspan 33 inches
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ROSS'S GULL

Sometimes called the Rosy Gull because of its pinkish underparts. It is rarely seen by most birders as it spends most of its time confined in the Arctic Circle. The only known nesting area in North America is near Churchill, Manitoba where the species has nested since 1980. In winter plumage the black collar fades away to a small dark ear spot. In flight look for long pointed wings, darker below than above with white trailing edges and the long wedge-shaped tail. Juveniles have paler legs and feet, a black ear spot, and a black tail tip; a combination of dark brown outer primaries and carpal bar form a W across the wings and mantle.



- **SONG** Sings musical *ah-wo, ah-wo* and *clah, clah, clah*. In confrontation utters *miaw, miaw*.
- **BEHAVIOR** Finds food by wading in water, swimming, or diving to surface while flying. Eats insects, marine crustaceans, and small fish. A bird of high arctic regions, it is almost never seen far below the drift. Often feeds along mudflats in sandpiper or phalarope fashion, walking and picking up food. Defensive at nest; if approached will dive, screech loudly at intruder, and fly toward nest. In flight often trails legs below body like a storm-petrel. Has more ternlike flight than most gulls.
- **BREEDING** Monogamous. Colonial. In courtship raise tails, call softly, and circle each other on breeding ground.
- **NESTING** Incubation 21–22 days by both sexes. Semiprecocial young stay around nest 3 weeks. Both sexes desert nest shortly after nestlings hatch and return only to feed young. 1 brood per year.



JUVENILE



FIRST WINTER



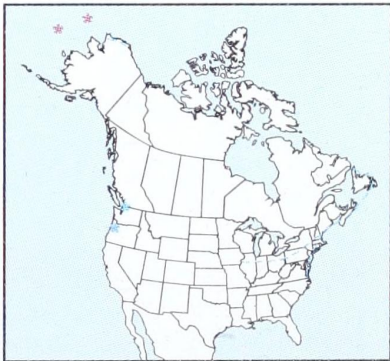
SECOND WINTER

Similar Birds	
	LITTLE GULL Juveniles and first winter birds are similar but smaller; straight tail.

Flight Pattern	
Flight varies from pigeonlike with rapid deep wing beats to ternlike with more leisurely buoyant flight. Also hovers.	

Nest Identification	
Shape	Location

- **POPULATION** Rare. Stable. Fairly common autumn migrant along northern coast of Alaska; casual to rare south to northern US in winter.
- **CONSERVATION** Has been listed as of some concern.



Dry grasses, twigs, moss, and leaves • on small pile of grass or tussock near or in water • built by both sexes • 3 brownish or greenish eggs spotted with brown; ovate to subelliptical, 1.8 inches long.

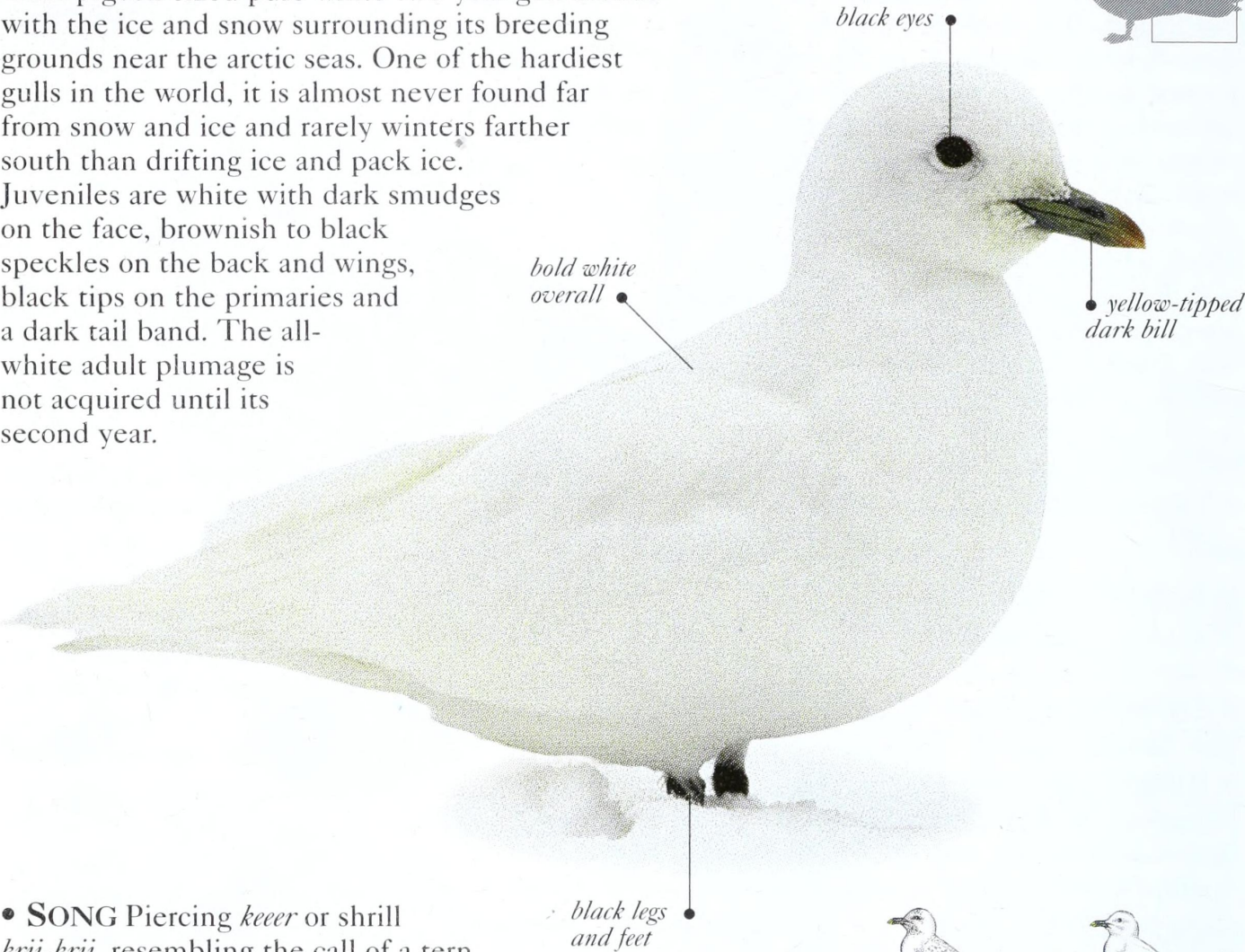
Plumage Sexes similar	Habitat	Migration Migratory	Weight 6.7 ounces
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DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Pagophila eburnea</i>	Length 15–17 inches	Wingspan 37 inches
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IVORY GULL

This pigeon-sized pure white two-year gull blends with the ice and snow surrounding its breeding grounds near the arctic seas. One of the hardest gulls in the world, it is almost never found far from snow and ice and rarely winters farther south than drifting ice and pack ice. Juveniles are white with dark smudges on the face, brownish to black speckles on the back and wings, black tips on the primaries and a dark tail band. The all-white adult plumage is not acquired until its second year.



- **SONG** Piercing *keer* or shrill *krii-krii*, resembling the call of a tern.
- **BEHAVIOR** Active scavenger. Eats refuse, carrion, dung of large mammals, mollusks, crustaceans, insects, and lemmings. Patters feet on water like a storm-petrel.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 24–26 days by both sexes. Semiprecocial young stay in and around nest about 35 days. Fed by both sexes. 1 brood per year.
- **POPULATION** Circumpolar. Uncommon on breeding grounds



JUVENILE



SECOND WINTER

Similar Birds
All-white plumage is distinctive.

Flight Pattern

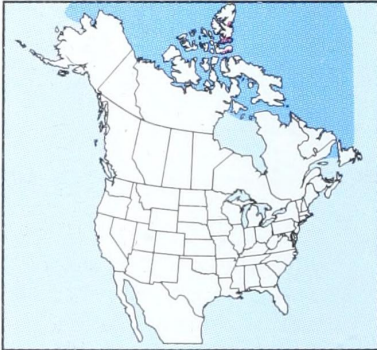


Buoyant light graceful flight for a long broad-winged heavy-bodied gull. Often flies with feet trailing and dangling below.

Nest Identification

Shape  Location 

and in arctic seas wintering areas and northern and western Alaska. Casual along Atlantic Coast to New York. Accidental on the the Great Lakes and in the interior to Tennessee. In the west accidental to rare south of Alaska.



Dry grass, moss, lichen, feathers, and debris; sometimes no nest • built by both sexes • 1–3 ocherish white eggs blotched with dark olive, brown, or black; subelliptical, 2.4 x 1.7 inches.

Plumage Sexes similar	Habitat 	Migration Migratory	Weight 1.4 pounds
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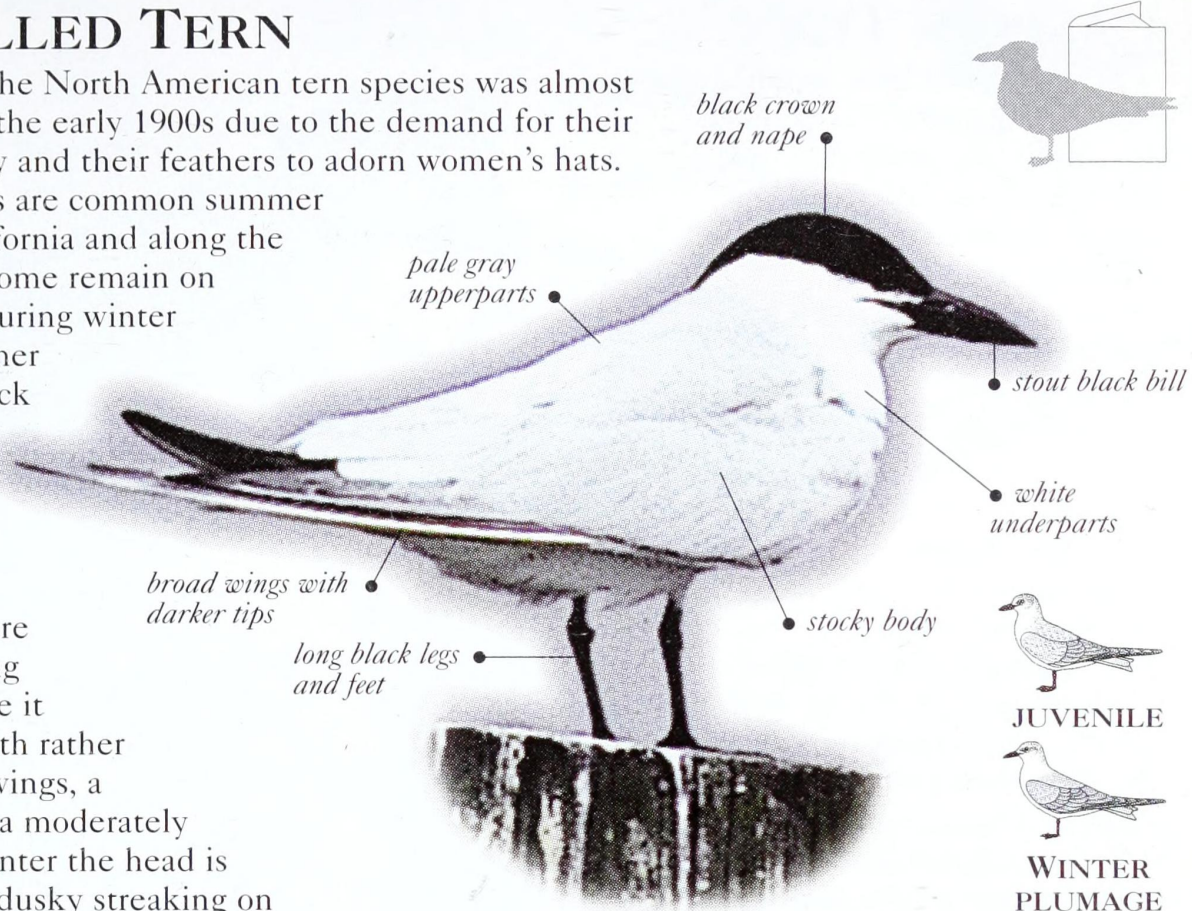
DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Sterna nilotica</i>	Length 13–14 inches	Wingspan 33–34 inches
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GULL-BILLED TERN

The whitest of the North American tern species was almost exterminated in the early 1900s due to the demand for their eggs as a delicacy and their feathers to adorn women’s hats. Gull-billed Terns are common summer residents in California and along the Atlantic Coast. Some remain on the Gulf Coast during winter months. In summer adults have a black cap that extends below the eyes and down the nape and pale gray upperparts that are darker at the wing tips. At a distance it appears white with rather broad, rounded wings, a heavy body, and a moderately forked tail. In winter the head is white with faint dusky streaking on the nape. Juveniles have dusky streaking on the pale upperparts and a brownish bill.

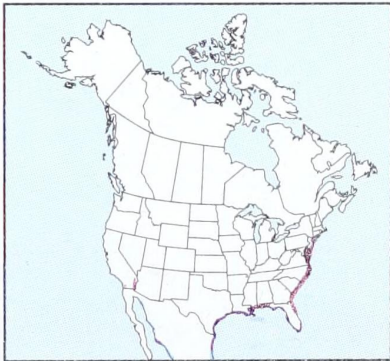
- **SONG** Raspy sharp *ge-rek* or dry raspy *kay-tih-DID* or *kay-DID*. Young give faint high-pitched *peep peep* call.
- **BEHAVIOR** Flies over farm fields or marshes to catch insects, its main diet. Over water sometimes swoops to surface to catch small prey. Also eats earthworms, frogs, and crustaceans.
- **BREEDING** Monogamous. Colonial and/or solitary. Pairs sometimes nest at edge of other tern species’ colonies.
- **NESTING** Incubation 22–23 days by both sexes. Semiprecocial young may leave nest a few days after hatching and hide in dense plant cover. Fed by both sexes. First flight at 28–35 days. Young may remain with parents for 90 days or more and migrate with them. 1 brood per year.
- **POPULATION** Fairly common but local. Less common on Atlantic Coast. Casual to accidental in interior except in Salton Sea.



Similar Birds

SANDWICH TERN
Slender black bill with yellow tip; deeper fork in tail; longer, more slender, more pointed wings with darker outer primaries; more slender body.

FORSTER'S TERN
White underparts; pale gray upperparts; more slender body; slender, more pointed wings; deeply forked tail; mostly orange bill, legs, and feet.



Flight Pattern

Direct flight with easy, graceful shallow wing beats.

Nest Identification

Shape Location

On open ground; often concealed in detritus among shells • lined with plant material and debris; rimmed with sand, shells, sticks, and grass • built by both sexes • 1–4 pink-buff to yellowish eggs lightly spotted with dark brown; oval and well-rounded at small end, 1.9 x 1.3 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 8.2 ounces
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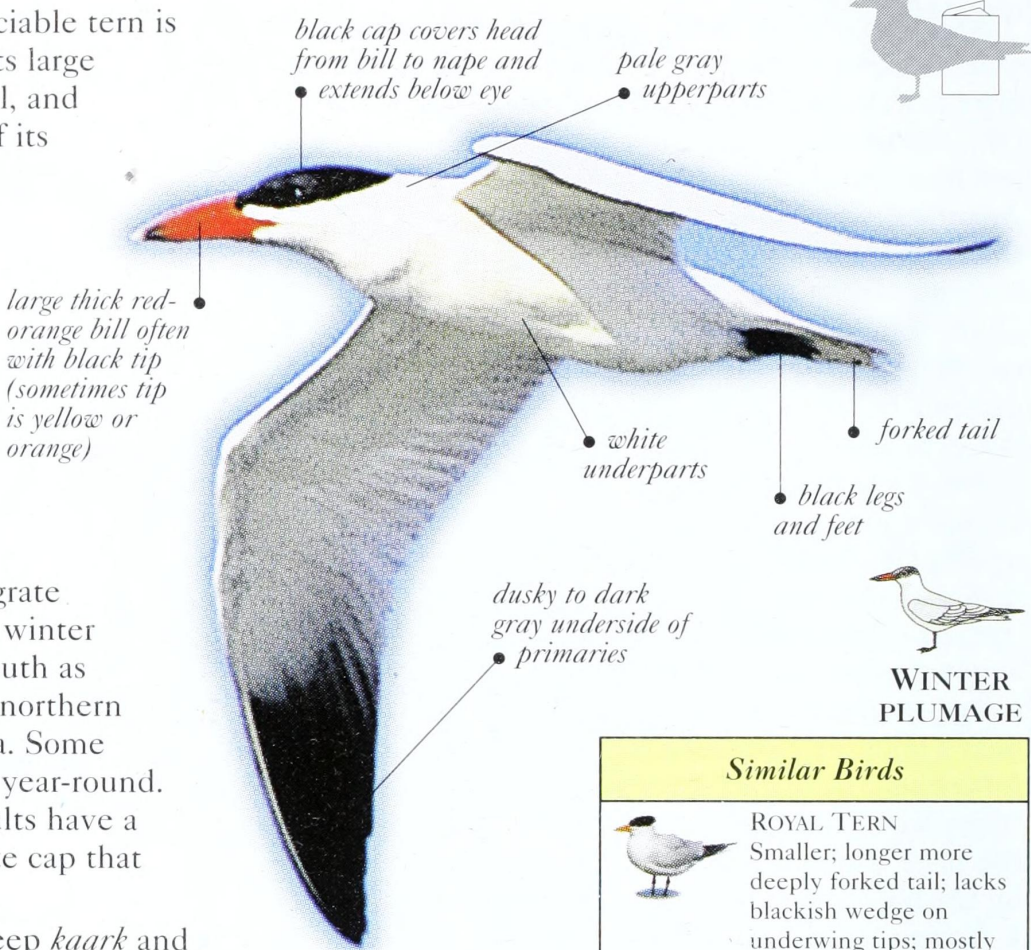
DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Sterna caspia</i>	Length 19–23 inches	Wingspan 50–55 inches
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CASPIAN TERN

The largest and least sociable tern is easily distinguished by its large size, stout red-orange bill, and tail forked to a quarter of its length. In flight the underside of the outer primaries are dark. Caspian Terns are known for their predatory feeding habits, sometimes stealing catches from other seabirds and eating eggs and young of other terns and gulls. Many Caspian Terns migrate to coastal regions during winter months, moving as far south as the West Indies and the northern regions of South America. Some remain in coastal locales year-round. Juveniles and winter adults have a streaked dusky-and-white cap that extends below the eye.

- **SONG** Call is harsh deep *kaark* and *ka-arr*. Young whistle a distinctive *whee-you*.
- **BEHAVIOR** This common coastal inhabitant also visits inland wetlands in summer. Gull-like, it often feeds on water surfaces but sometimes dives into water for small fish, its principal food. When patrolling flies with bill pointed down. Often hovers before plunge diving into water for prey.
- **BREEDING** Monogamous. Colonial. Rarely solitary.
- **NESTING** Incubation 20–28 days by both sexes. Semiprecocial young may leave nest for nearby shore a few days after hatching. First flight at 28–35 days. Young may remain with parents up to 8 months. 1 brood per year.
- **POPULATION** Stable range; some populations increasing.



WINTER PLUMAGE

Similar Birds

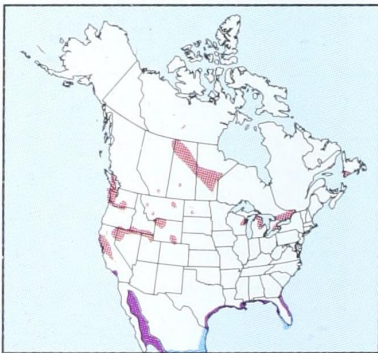
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ROYAL TERN
Smaller; longer more deeply forked tail; lacks blackish wedge on underwing tips; mostly white forehead and anterior crown except early in breeding season, when entire crown is black; black crest on nape; less stout orange bill without black tip.
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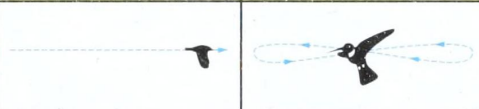
ELEGANT TERN
Smaller; long thin red-orange bill without black tip; black crest; white underparts with pinkish tinge • western range.

Small colonies scattered over breeding range.

- **CONSERVATION**
Vulnerable to disturbance of coastal nesting colonies and habitat loss on beaches and inland wetlands.



Flight Pattern



Strong swift graceful flight. Bulk makes it appear gull-like. Sometimes hovers briefly over prey before dipping down to seize it.

Nest Identification

Shape  Location 

Lined with seaweed, moss, grass, and occasional debris • sometimes concealed among shells, driftwood, and rubbish • built by both sexes • 1–3, sometimes 4–5, pinkish buff eggs with brown markings; ovate, elliptical ovate, or subelliptical, 2.5 x 1.8 inches.

Plumage Sexes similar	Habitat 	Migration Migratory	Weight 1.4 pounds
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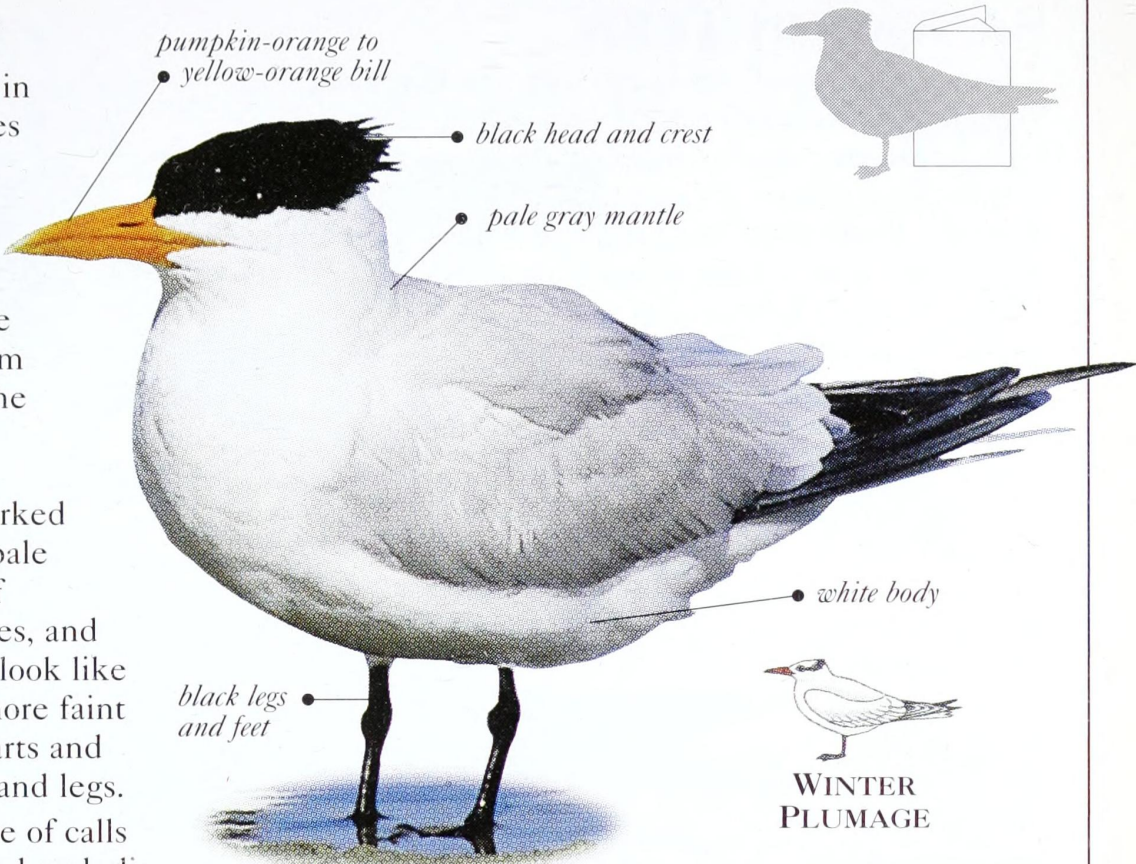
DATE TIME LOCATION

Family LARIDAE	Species <i>Sterna maxima</i>	Length 18–21 inches	Wingspan 42–44 inches
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ROYAL TERN

The second-largest tern in North America sometimes is seen snatching food from the Brown Pelican’s pouch. Briefly in spring and early summer adults have a shaggy black crown from bill to nape; the rest of the year the forehead and forecrown are white. In flight birds show a tail forked to about half its length, pale underwings to the tips of dusky outermost primaries, and an orange bill. Juveniles look like winter adults but have more faint streaking on the upperparts and yellowish or orange feet and legs.

- **SONG** Large repertoire of calls includes bleating *ee-ah* and melodic trilled whistle, *tourreee*. In nesting areas often squawks *quak, kak*, or *kowk*.
- **BEHAVIOR** Plunge dives, from a hover 40–60 feet above ocean or inlets, and goes below surface for a catch. Eats mostly fish but also takes marine invertebrates, including shrimp and squid. When not feeding often loafs on sandbars, beaches, or mudflats with other species of terns and gulls.
- **BREEDING** Monogamous. Colonial. Often nests in mixed colonies with other species of terns.
- **NESTING** Incubation 20–31 days by both sexes. Young semiprecocial; upon leaving nest a few days after hatching, young often gather in creche, where they recognize parents by voice and beg for food. First flight at 28–35 days. May remain with parents up to 8 months or longer and migrate with them.
- **POPULATION** Declining. Has declined in California since 1950. Fairly common in breeding range; uncommon to rare north of



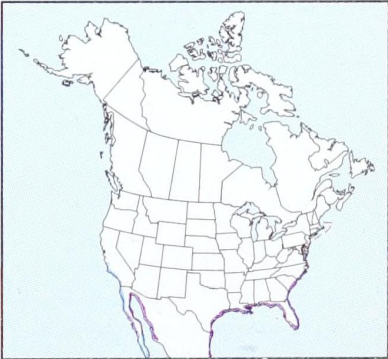
Similar Birds



ELEGANT TERN
Smaller body; more slender reddish orange bill that appears slightly drooped at tip; longer shaggy crest extends down nape;
• western range.



CASPIAN TERN
Larger body; black cap extends below eyes; lacks white forehead; thicker bright red bill; tail not as deeply forked; dark underside and pale upperside on primaries.



Flight Pattern

Direct flight with deep, more rangy, continual slow wing beats. Hovers briefly before plunge diving for prey.

Nest Identification

Shape

Location

Sometimes sparsely lined with debris • built by both sexes • 1–2, sometimes 3–4, whitish buff to brown eggs with reddish brown markings, occasionally wreathed; ovate to elliptical ovate, 2.5 inches long.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.0 pound
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DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Sterna sandvicensis</i>	Length 14–16 inches	Wingspan 34 inches
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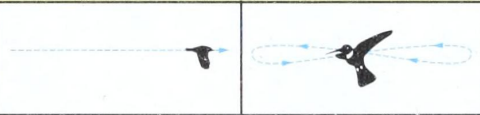
SANDWICH TERN

This medium-sized tern is the only one that has a long slender black bill tipped with yellow. A coastal bird, it migrates short to medium distances from the Atlantic Coast above Florida in winter, and many disperse widely along the Gulf Coast. Generally seen inland only after storms, it rarely visits freshwater locales. In flight it is slender and shows dark above on the three to four outer primaries, a mostly white underwing, and a deeply forked, short tail.

Winter adults (after July) have a white forehead and forecrown, and the tail is more gray. Juveniles are similar to winter adults but have mottled dark markings on the back and upperwings and may lack the yellow tip on the bill.

- **SONG** Whistles abruptly; makes grating *gwit gwit* and *kir-rick* notes.
- **BEHAVIOR** More than other terns, it prefers to feed at sea and dives from great heights to catch prey under water. Usually hovers before diving for fish. Eats variety of small fish, squid, and shrimp. Often rests/roosts on beaches and bars with other terns, especially in the company of Royal Terns.
- **BREEDING** Monogamous. Colonial. Often in mixed colonies with other terns. Colony disturbance causes young to leave nest and gather in group. Young recognize parents by voice.
- **NESTING** Incubation 21–29 days by both sexes. Semiprecocial young fed by both sexes. First flight at 28–32 days. Remains with parents for 4 months after first flight. 1 brood per year.

Flight Pattern



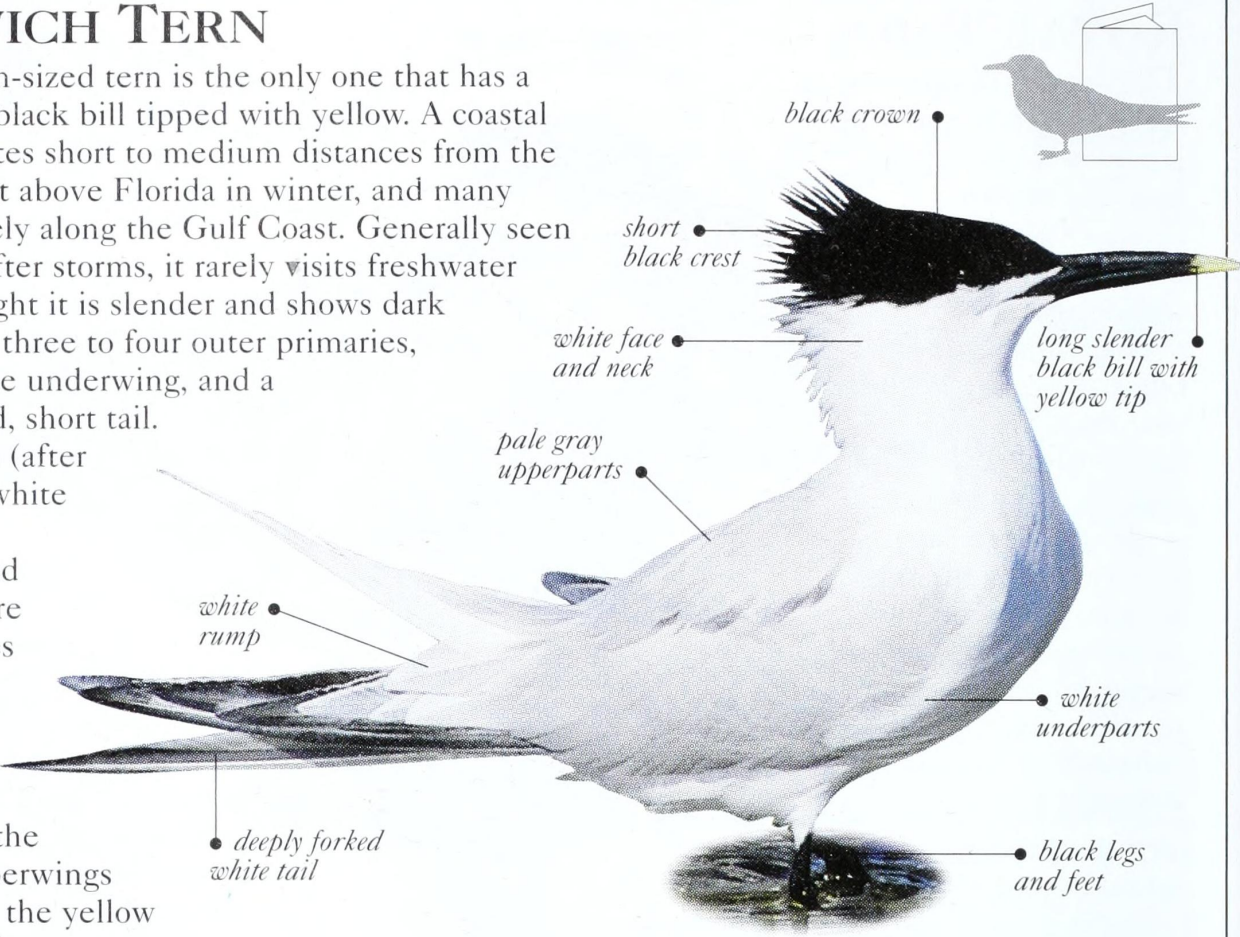
Powerful direct flight heavier and less graceful than that of similar-sized terns. Usually hovers before diving for fish.

Nest Identification

Shape  Location 

- **POPULATION** Increasing but still uncommon. Casual spring and summer visitor to coastal southern California.
- **CONSERVATION** Vulnerable to disturbance and predation at nesting colonies.

Lined with debris or unlined • on ground in open above tidemark • built by both sexes • 1–3 pale cream to pinkish buff eggs with brown, black, and gray markings; subelliptical, 2 x 1.4 inches.

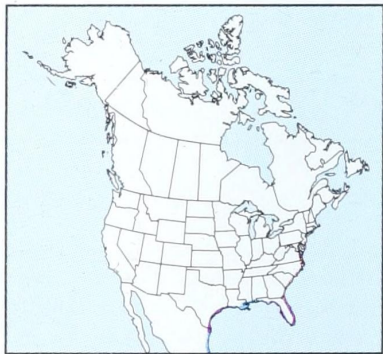


WINTER

Similar Birds



GULL-BILLED TERN
Silver-gray upperparts, tail, and rump; paler wing tips above and below; heavy black bill; short forked tail • black cap until early autumn.



Plumage Sexes similar	Habitat 	Migration Migratory	Weight 7.3 ounces
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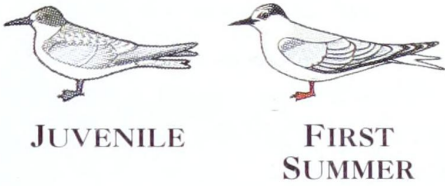
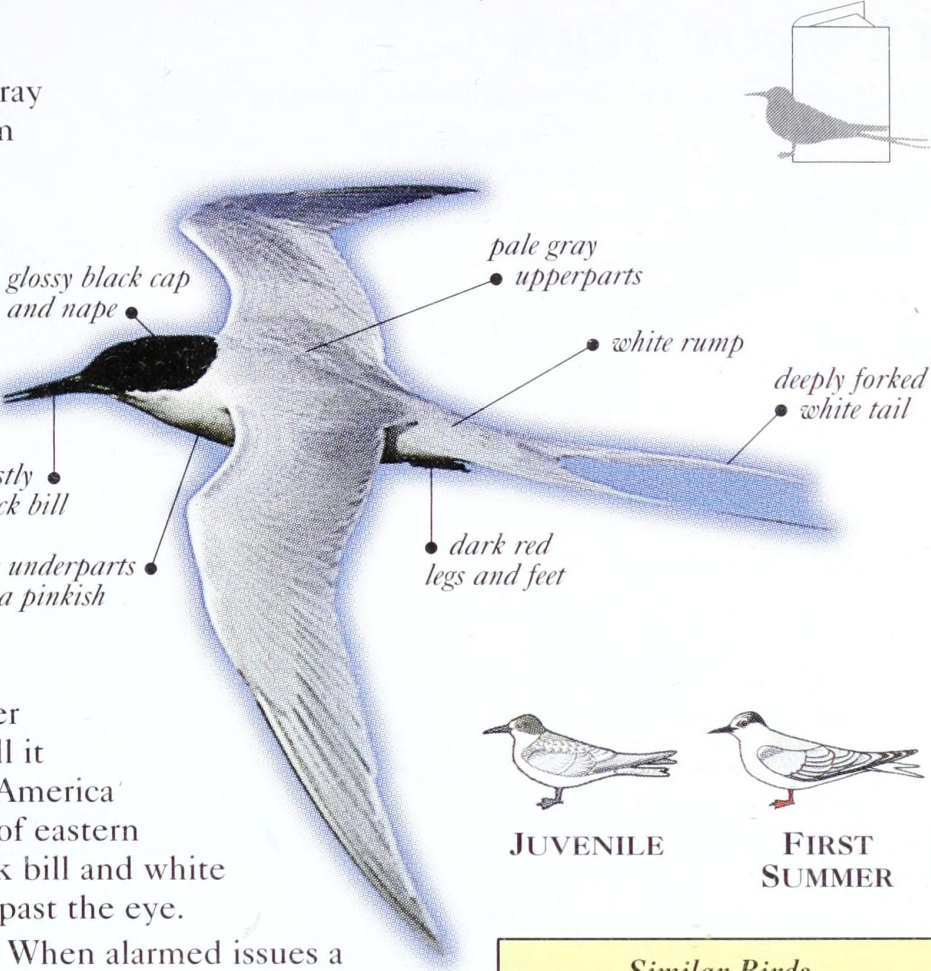
DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Sterna dougallii</i>	Length 14–17 inches	Wingspan 30 inches
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ROSEATE TERN

The Roseate Tern’s pale pearl-gray plumage helps distinguish it from Common and Arctic Terns. Its wing tips and tail are also paler than in those species, and the tail is more deeply forked. The pinkish tinge on the underparts, which gives the bird its name, is rarely seen except under favorable conditions. When it is perched, the long white outer tail feathers extend well beyond the tips of its folded wings. It has a mostly black bill, even in summer when the base may be red. In fall it leaves North America for South America where it winters along the coast of eastern Brazil. Winter adults have a black bill and white forehead and crown that extend past the eye.

- **SONG** Sings a gentle *chi-weep*. When alarmed issues a drawling *zra-ap*; rasping, low *aaak*; and quiet *chivy*.
- **BEHAVIOR** Highly marine and coastal, coming ashore only to breed. Often forms noisy active flocks when large predatory fish drive large schools of small fish to the water’s surface. Plunge dives for prey and often resumes hovering before making its next catch. Eats mainly small fish. Never seen in large numbers except over waters surrounding nesting colonies.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 21–26 days by both sexes. Semiprecocial young may leave nest a few days after hatching. First flight at 27–30 days, but fed by both sexes for additional 2 months. 1 brood per year.
- **POPULATION** Uncommon to rare off the Atlantic Coast, coming ashore only to breed.



Similar Birds

- 

COMMON TERN
Slightly smaller; black-tipped red bill; dark wing tips; shorter, less deeply notched tail with dark outer border; different voice.
- 

ARCTIC TERN
Grayer; gray mantle, wings, and underparts; white cheeks; dusky gray wing tips; long, deeply forked tail with gray on outer margins; red bill; different voice.

- **CONSERVATION** Endangered in the Northeast where Herring Gulls have overrun island colonies. Vulnerable to human disturbance as well as domesticated and feral predators on nesting grounds.



Flight Pattern



Graceful flight with quick wing beats. Hovers prior to plunge diving for prey.

Nest Identification

Shape 

Location 

Lined with bits of debris, dry grass, seaweed, and rubbish • on ground under cover • built by both sexes • 1–3 cream to buff to pale eggs speckled with reddish brown and gray, occasionally wreathed; subelliptical, 1.6–1.7 x 1.1–1.2 inches.

Plumage Sexes similar	Habitat 	Migration Migratory	Weight 3.8 ounces
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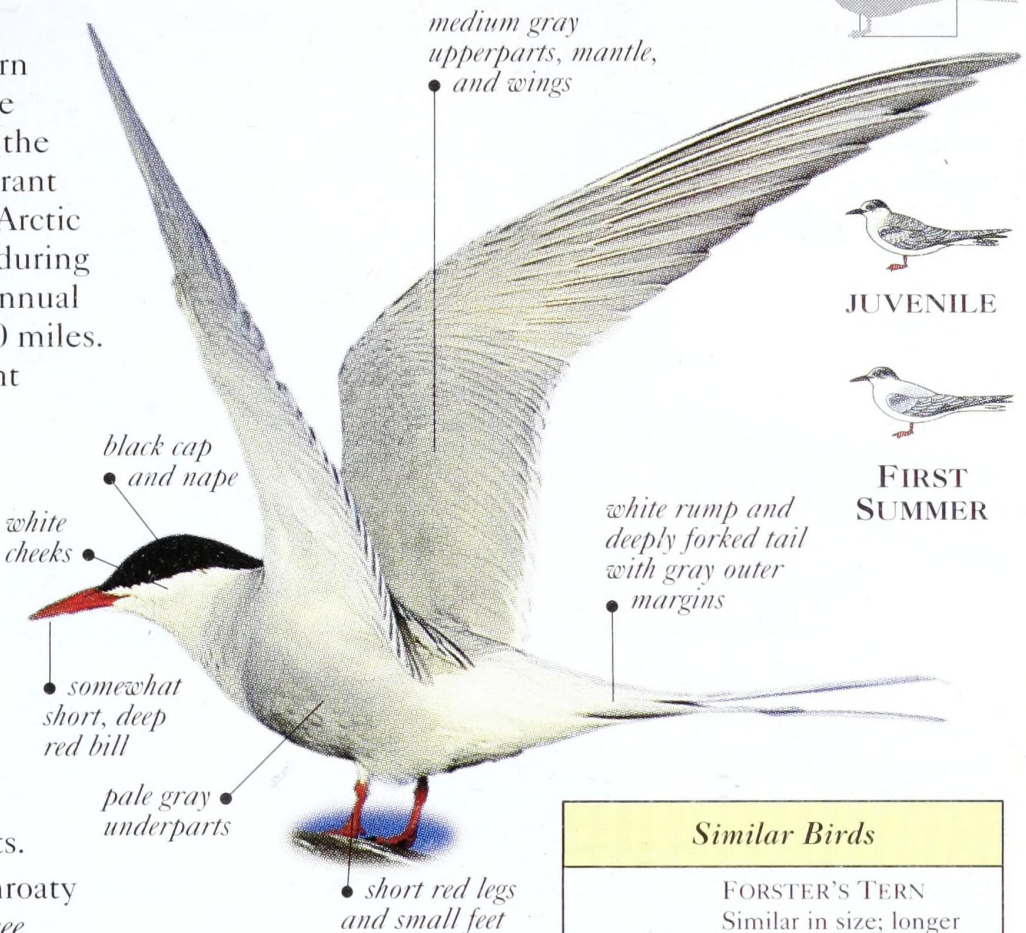
DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Sterna paradisaea</i>	Length 14–17 inches	Wingspan 29–33 inches
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ARCTIC TERN

Distinguishable from similar terns by its short red bill, neck and legs, the Arctic Tern sometimes appears to huddle on the ground. It is perhaps the champion long-distance migrant of the world, nesting in the Arctic and wintering in Antarctica during their summer, traveling an annual distance of more than 25,000 miles. In flight, note the translucent flight feathers with a narrow trailing black border on the primaries; gray underparts; and deeply forked tail. Winter adults have white foreheads and crowns to the back of the eye, and dark bills and feet. Juveniles have white foreheads, and silvery white secondaries and outer coverts.

- **1SONG** Calls include a throaty *tr-tee-ar* and a shrieking *kee-kee*, similar to Common Tern, but higher and harsher, with emphasis on second or third note. Alarm call sounds like a brief *kee-kahr*.
- **BEHAVIOR** Often observed hovering 30–40 feet above water while searching for prey. Plunge dives to catch fish. Eats small fish and marine invertebrates, including small crustaceans. Very defensive at nest, often flying out and striking intruder while continuously vocalizing. Often follows fishing vessels.
- **BREEDING** Monogamous. Pairs or colonial.
- **NESTING** Incubation 20–24 days by both sexes. Semiprecocial young leave nest 1–3 days after hatching to hide nearby. First flight at 21–28 days. Young remain with parents additional 30 to 60 days, fed by both sexes. 1 brood per year.



Flight Pattern

Buoyant graceful flight with nearly constant wing beats. Hovers above prey before plunge diving or dipping to surface.

Nest Identification

Shape Location

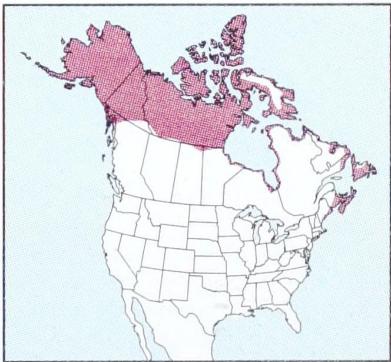
• **POPULATION** Common to fairly common on breeding grounds. Casual to uncommon well offshore during migration. Steadily declining on southern end of breeding range along Atlantic Coast.

Vegetation lined with debris, occasionally grass and shells • built by both sexes • 1–3 buff to pale olive eggs, blotched with black and brown markings; oval to subelliptical, 1.6 inches long.

Similar Birds

FORSTER'S TERN
Similar in size; longer black-tipped orange bill and orange legs and feet; white underparts; frosty wing-tips; forked white tail with dusky inner margins; rarely seen well offshore.

COMMON TERN
Slightly stockier; flatter crown; longer neck and long red, black-tipped bill; shorter notched tail; dusky gray wing-tips above and below.



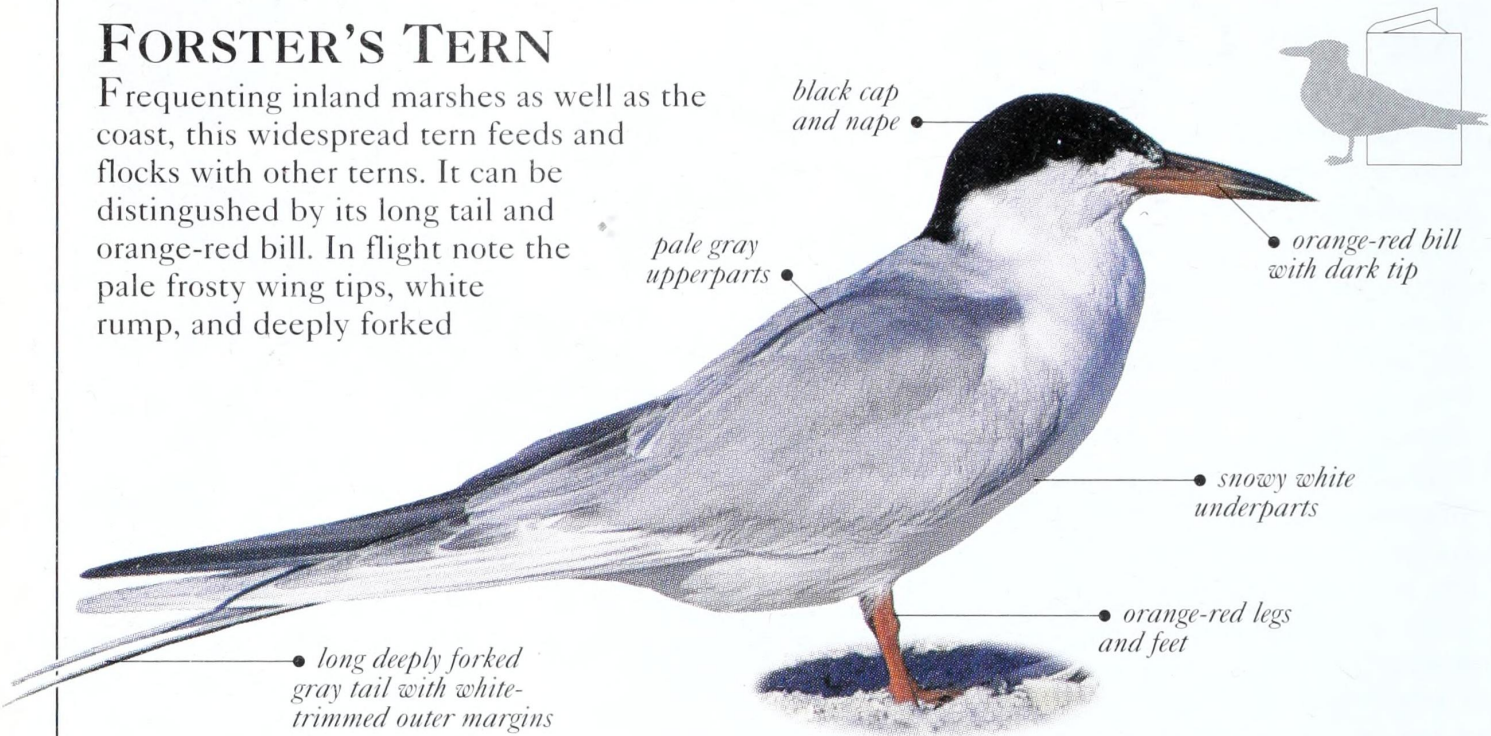
Plumage Sexes similar	Habitat	Migration Migratory	Weight 3.8 ounces
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DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Sterna forsteri</i>	Length 14–15 inches	Wingspan 30–31 inches
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FORSTER'S TERN

Frequenting inland marshes as well as the coast, this widespread tern feeds and flocks with other terns. It can be distinguished by its long tail and orange-red bill. In flight note the pale frosty wing tips, white rump, and deeply forked



gray tail with white outer margins. Winter plumage shows dull yellow feet, a dark bill, and a white head with a black patch through the eye and ear. Juveniles are like winter adults but have a shorter tail, a ginger crown, and darker upperwings.

- **SONG** Throaty nasal *ki-arr*, *za-a-ap*, or *zrurrr*, with nighthawklike quality. Also gives piercing *kit, kit, kit* cry.
- **BEHAVIOR** Catches insects in flight. Eats dragonflies and other insects. Hovers above water, then plunge dives for small fish. Dips to water's surface to catch floating insects, keeping its feathers dry.
- **BREEDING** Monogamous. Loose colonies.
- **NESTING** Incubation 23–25 days by both sexes. Semiprecocial young leave nest after a few days but tended by both sexes until able to fly. 1 brood per year.

Flight Pattern



Shallow slow graceful strong flight with body moving up and down. Hovers over water prior to diving for prey.

Nest Identification

Shape  Abandoned nests

Location 

- **POPULATION** Common. Declining in some areas because of loss of marshlands.
- **CONSERVATION** Vulnerable to habitat loss to agriculture and development in draining of wetlands.

Atop floating dried reeds and lined with grass and reeds; in mud or sand and lined with bits of shells and grass; sometimes uses old grebe nests or muskrat houses • built by both sexes • 1–4 olive or buff eggs with brown or olive splotches and sometimes marked with dark brown lines; oval to short elliptical, 1.7 inches long.

Similar Birds



JUVENILE



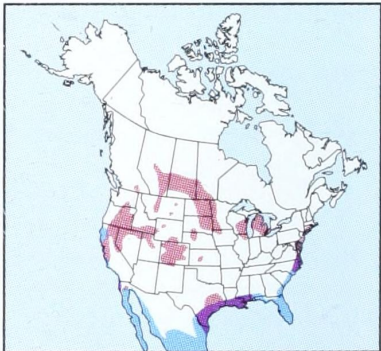
WINTER PLUMAGE



COMMON TERN
Shorter tail; red bill; dark wing tips; white tail with dark outer margins • winter adults and juveniles have white forehead and forecrown; dark shoulder; dark eye patch joins at nape; higher-pitched call.



ARCTIC TERN
Shorter red bill without dark tip; shorter legs; gray underparts; gray throat and chin contrast with white face; white tail with dark outer margins; pale underwing with black trailing margins.

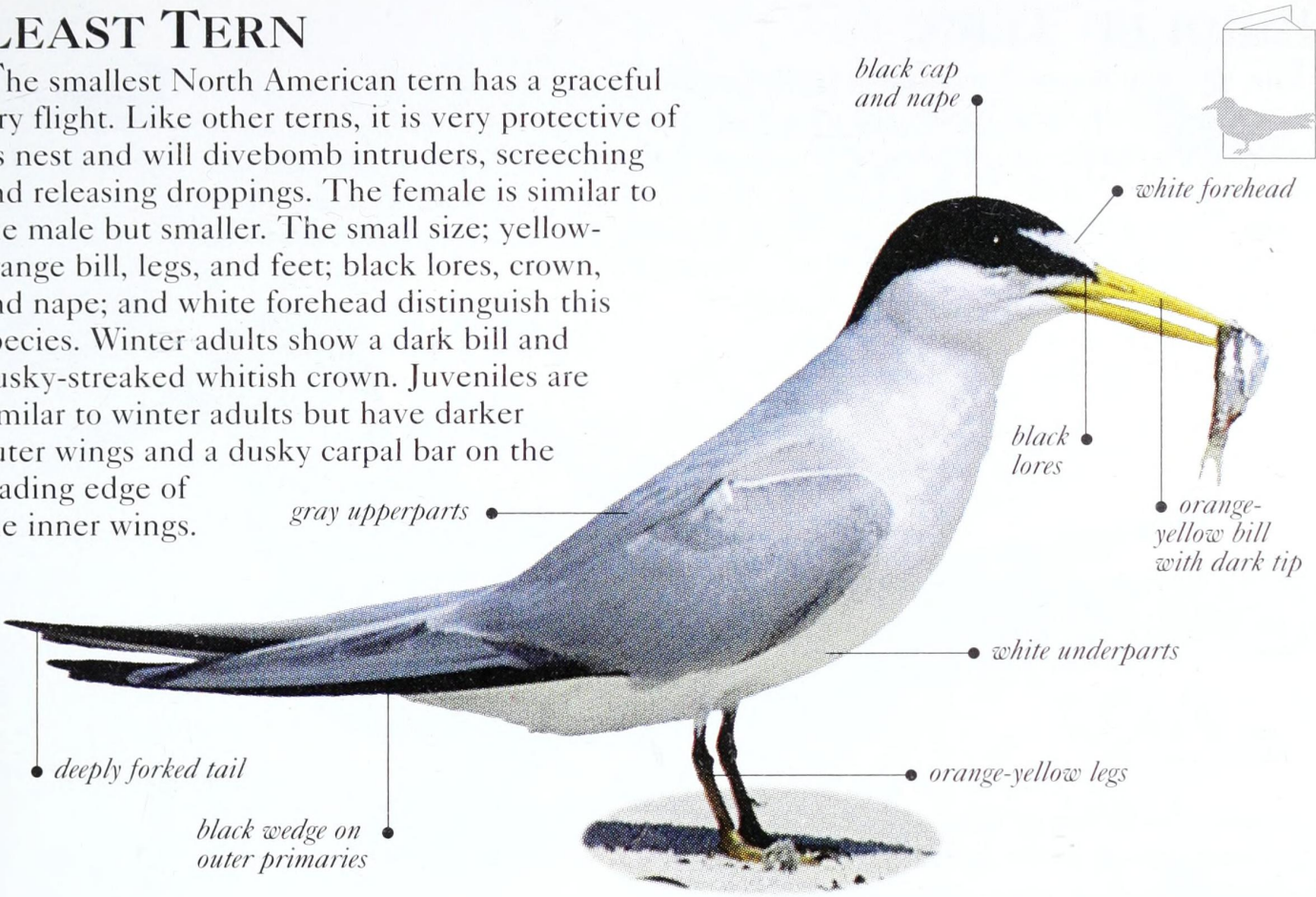


Plumage Sexes similar	Habitat 	Migration Migratory	Weight 5.6 ounces
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Family LARIDAE	Species <i>Sterna antillarum</i>	Length 8–9 inches	Wingspan 20 inches
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LEAST TERN

The smallest North American tern has a graceful airy flight. Like other terns, it is very protective of its nest and will divebomb intruders, screeching and releasing droppings. The female is similar to the male but smaller. The small size; yellow-orange bill, legs, and feet; black lores, crown, and nape; and white forehead distinguish this species. Winter adults show a dark bill and dusky-streaked whitish crown. Juveniles are similar to winter adults but have darker outer wings and a dusky carpal bar on the leading edge of the inner wings.



- **SONG** Piercing *kip, kip, kip* or rapid repeated *kid-ik, kid-ik*. Also makes a grating *zr-e-e-e-ep*.
- **BEHAVIOR** Catches food in bill in flight by swooping down to surface or by diving. After catching prey often swallows it while flying or brings it to nest. Eats small fish, crustaceans, and sand eels. Hovers prior to plunge diving.
- **BREEDING** Monogamous. Colonial. Occasionally solitary.
- **NESTING** Incubation 20–25 days by both sexes (female begins incubation; male finishes it). Semiprecocial young leave nest a few days after hatching, hide nearby, and are fed and tended by both sexes for 60-90 days after first flight. First flight at 19–20 days. 1–2 broods per year.
- **POPULATION** Fairly common but local in the East and on the Gulf Coast. Some decline in interior, Mississippi Valley, and on southern California coast.



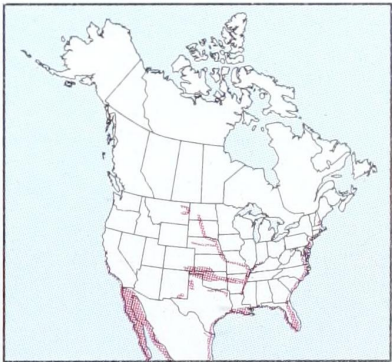
Similar Birds	
	BLACK TERN Winter adults and juveniles have dark bill; dusky crown and ear patch; darker mantle; darker legs and feet; larger; tail not deeply forked.

Flight Pattern	
Buoyant, graceful, fast, smooth flight with rapid airy wing beats; more rapid wing beats than any other tern in range. Hovers briefly before dipping down to seize prey.	

Nest Identification	
Shape	Location

Sometimes lined with pebbles, grass, and debris • on ground in sand or sometimes on roof • built by female • 1–3 buff to pale green eggs with black, gray, or brown markings; oval or subelliptical, 1 x 1.4 inches.

- **CONSERVATION** Some populations considered endangered due to human disturbance of nesting areas.



Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.5 ounces
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Family LARIDAE	Species <i>Sterna anaethetus</i>	Length 14–15 inches	Wingspan 30 inches
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BRIDLED TERN

This shy tern is rarely seen from shore except after storms when it is blown off course. In North America it spends most of its time in the warm waters of the Gulf of Mexico and the Gulf Stream as far north as North Carolina. It often nests in colonies with Sooty Terns and other seabirds. In flight, note the white collar separating the black crown from the grayish brown back, the grayish band on the trailing edge of the underwing, and the extensive white in the tail and underwing.



Juveniles have smoky gray upperparts with white mottling.

- **SONG** High-pitched harsh yapping crowlike call of *wep-wep-wep* or *wup-wup*.
- **BEHAVIOR** Oceanic. Eats small fish, squid, crustaceans, and insects. Hovers over water, then dips to grip food with bill. Feeds day or night. Sometimes swims. Frequents inshore waters but usually returns to land to roost.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 28–30 days by both sexes. Semiprecocial young stay in nest a couple of days after hatching, then move to nearby sheltered area. First flight at 55–63 days. Young are fed by both sexes. 1 brood per year.
- **POPULATION** Common Caribbean species; nests locally off the Florida Keys (Pelican Shoals). Uncommon to fairly common well offshore in the Gulf of Mexico and in the Gulf Stream to North Carolina. Rare farther north to New England and inland when it is blown in by the occasional hurricane.

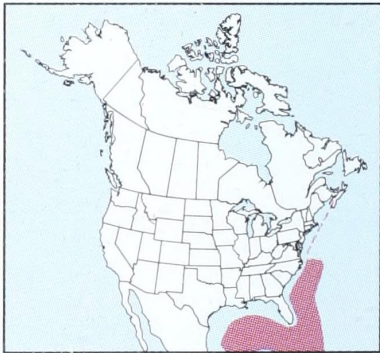


JUVENILE

Similar Birds



SOOTY TERN
Lacks white collar between cap and back; white patch extends from forehead to eye but not beyond it; darker upperparts; deeply forked tail with narrow white edging.



Flight Pattern

Buoyant strong direct flight with shallow wing beats. Sometimes hovers above water before dipping to surface for prey.

• **CONSERVATION**
Vulnerable to introduced domestic predators and human disturbance on nesting islands; some humans collect this bird's eggs for food.

Nest Identification

Shape

Location

Unlined • hides egg under matted plant material • built by both sexes
• 1 whitish to pale buff egg marked with various shades of brown; oval, 2 x 1.4 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 3.4 ounces
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DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Sterna fuscata</i>	Length 16–17 inches	Wingspan 32–34 inches
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SOOTY TERN

For years, tuna fishermen have followed feeding flocks of Sooty Terns to locate schools of tuna. Sailors sometimes call this bird “wide-awake,” because of its loud night call from the nesting colony, which sounds like *wide-a-wake*. These birds do not breed until they are at least four to eight years of age. Adults have clean-cut black upperparts and white underparts, wing linings, forehead, and short eye stripe.

Juvenile is sooty brown overall with white speckling on mantle and upperwings, white lower belly and undertail coverts, white underwing lining, and forked tail.

• **SONG** A high nasal *ker-wacky-wack* or *wide-a-wake*.

• **BEHAVIOR**

Highly gregarious. Eats small fish and small squid. It is believed these birds sleep “on the wing,” because they do not land on water and return to shore only when nesting. Banding in Dry Tortugas indicates adults are not highly migratory but that juveniles migrate as far as west Africa and may be gone 2–6 years before returning to the Florida Keys.

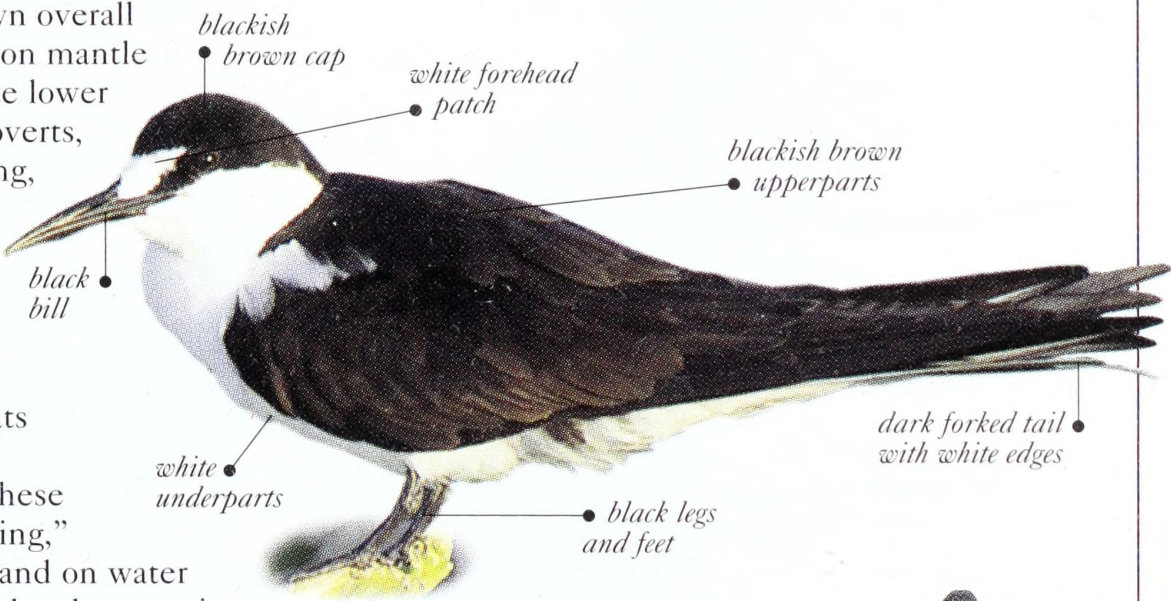
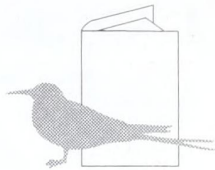
• **BREEDING** Monogamous. Colonial. Often nests in mixed colonies with Bridled Terns.

• **NESTING** Incubation 27–30 days by both sexes. Semiprecocial young wander around nest shortly after hatching, but remain close to parents. First flight at 56–63 days. May not leave colony for another 14–21 days, fed by both sexes. 1 brood per year.

• **POPULATION** Abundant. Widespread throughout tropical oceans. Large nesting colony on the Dry Tortugas; also nests on islands off Texas and Louisiana and on barrier islands of North Carolina. Regular in summer in Gulf Stream to North Carolina; casual to southern coastal California. Storm-blown birds to

Maritimes and Great Lakes.

• **CONSERVATION** Strict protection laws on the Tortugas and some Hawaiian colonies. Vulnerable to human disturbance and introduced predators on breeding islands.

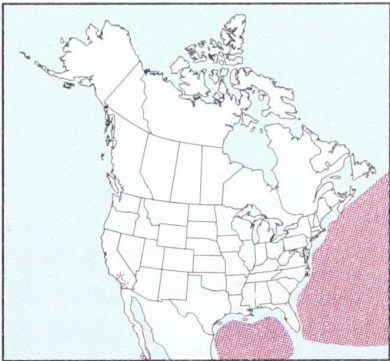


JUVENILE

Similar Birds



BRIDLED TERN
White patch on forehead extends beyond eye; more pointed wings; paler lead-gray upperparts; white collar separates crown from back; forked tail paler with more white edging on tip.



Flight Pattern	
Buoyant direct flight with strong, steady, shallow wing beats. Hovers above water before dipping to surface to pick up food.	

Nest Identification	
Shape	Location

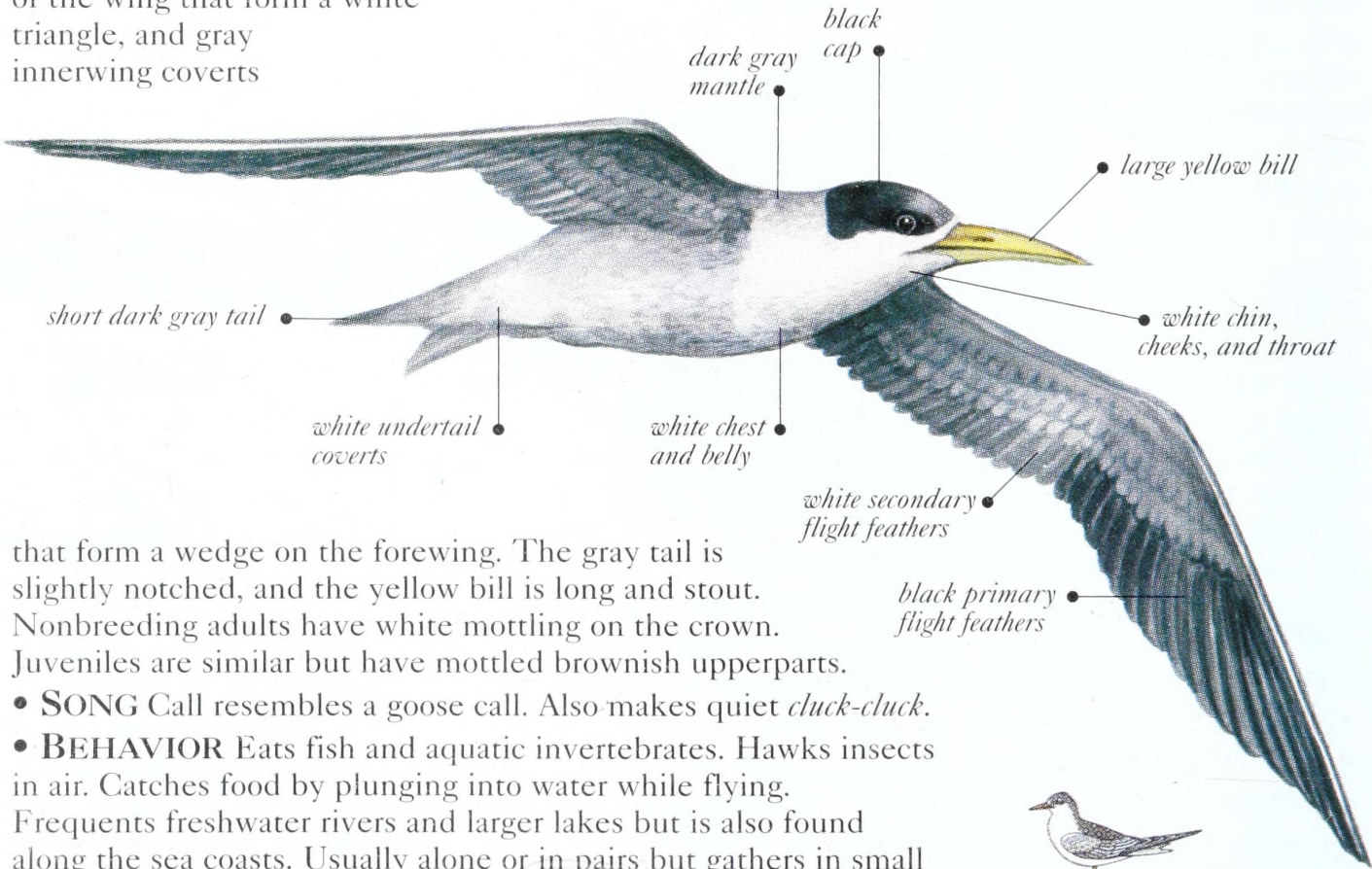
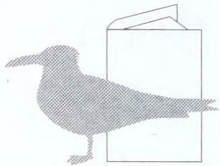
Lined with leaves • built by both sexes • 1 white to buff egg, with brown, gray, lavender, or black markings; oval, 2.0 x 1.4 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 6.3 ounces
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Family LARIDAE	Species <i>Phaetusa simplex</i>	Length 14.5 inches	Wingspan 34–36 inches
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LARGE-BILLED TERN

Vagrants of this South American species have shown up in Illinois, Ohio, and New Jersey. This tern is very territorial and will attack other waterbirds. One report tells of a highly aggressive Large-billed Tern attacking an Osprey. In flight its wing pattern is similar to that of Sabine’s Gull, with black primaries to the bend of the wing, white secondaries and coverts to the base of the wing that form a white triangle, and gray innerwing coverts



JUVENILE

that form a wedge on the forewing. The gray tail is slightly notched, and the yellow bill is long and stout. Nonbreeding adults have white mottling on the crown. Juveniles are similar but have mottled brownish upperparts.

- **SONG** Call resembles a goose call. Also makes quiet *cluck-cluck*.
- **BEHAVIOR** Eats fish and aquatic invertebrates. Hawks insects in air. Catches food by plunging into water while flying. Frequents freshwater rivers and larger lakes but is also found along the sea coasts. Usually alone or in pairs but gathers in small flocks to rest or roost along rivers. Sometimes gathers in much larger concentrations.
- **BREEDING** Monogamous. Colonial. Often in mixed colonies with other terns and skimmers.
- **NESTING** Incubation 27–30 days by both sexes.

Semiprecocial young leave nest a few days after hatching but linger near for 55–65 days; fed by both sexes until first flight. 1 brood per year.

Flight Pattern

Direct flight with strong steady shallow wing beats.

- **POPULATION** Accidental in North America. Fairly common on large rivers and lakes in South America.

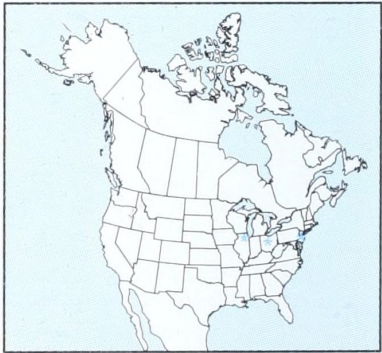
Nest Identification

Shape Location

No nest material • hidden in grasses and reeds • built by both sexes • 2 pale gray to olive-brown eggs with brown blotches; oval, 1.8 x 1.3 inches.

Similar Birds

None in North America.



Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 8.1 ounces
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Family LARIDAE

Species *Chlidonias leucopterus*

Length 9–10 inches

Wingspan 23–26 inches

WHITE-WINGED TERN

This Eurasian bird is a rare visitor to North America.

It closely resembles the Black Tern and is sometimes called the White-winged Black Tern.

Breeding plumaged birds are distinguished from Black Terns by their white tail, black underwing linings and white upperwing coverts. The bill, legs, and feet can be either deep red or black. In late summer the molt produces

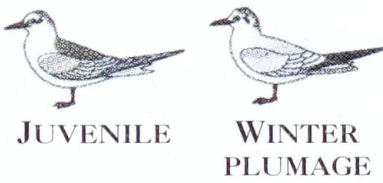
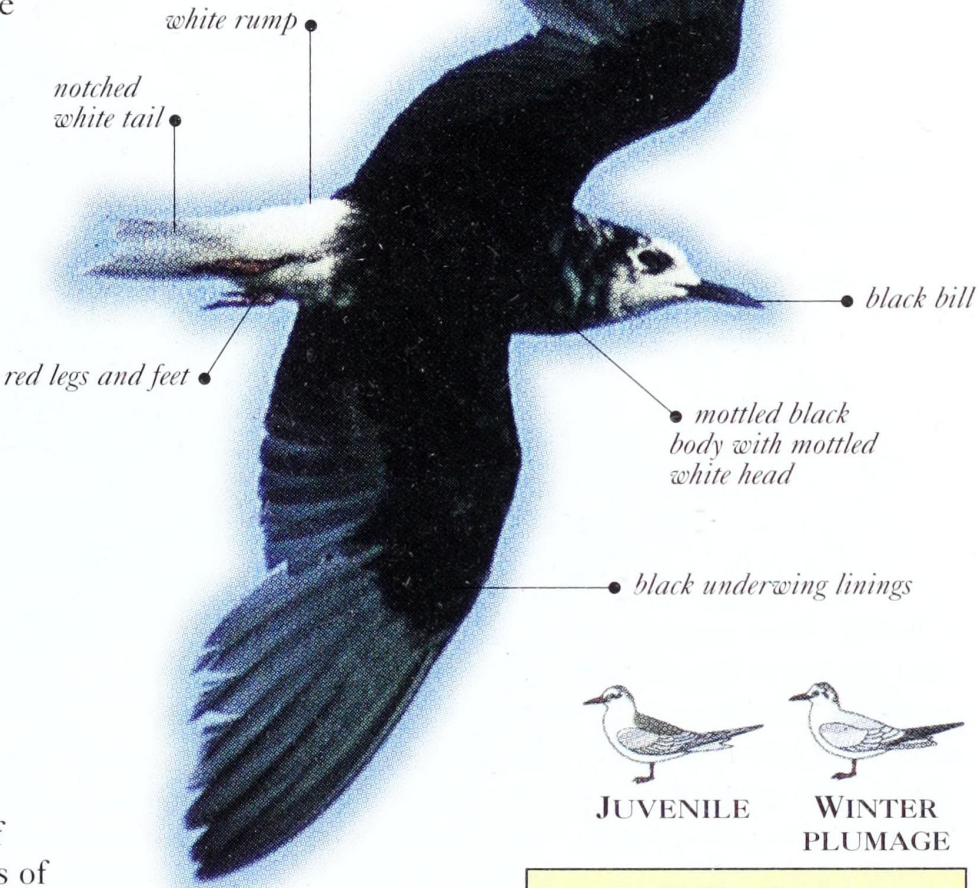
adults with mottled black-and-white heads and bodies such as the bird pictured here. The black wing linings are gradually lost to white. Winter plumage is mostly white with a speckled crown, dark legs and bill, and blackish primaries. Juveniles are similar to winter adult birds but have brown mottling on the back.

• **SONG** Call of *krip-krip* and *kree-ah*, *kik-kik*.

• **BEHAVIOR** Shows a marked preference for deeper bodies of water. It generally feeds by picking up insects with its bill from the surface of the water. Primary diet consists of insects, larvae, small fish, and crustaceans. Gregarious in winter, when it can be seen frequenting inland wetlands, lakes, and rivers.

• **BREEDING** Monogamous. Colonial.

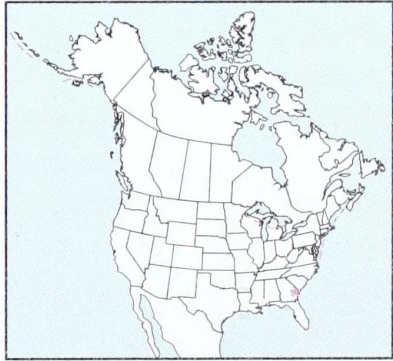
• **NESTING** Incubation 18–22 days. Semiprecocial young leave nest shortly after hatching but continue to be fed and tended by both sexes. First flight at 24–28 days. 1 brood per year.



Similar Birds



BLACK TERN
Black tail; lighter wing linings; dark upperwings; longer bill; longer, more pointed wings.



• **POPULATION** Rare to accidental. Casual on the East Coast and in the Great Lakes region. Individuals have mated with Black Terns in some places. Accidental along the Pacific Coast.

Flight Pattern



Fluttery uneven direct flight with slow, leisurely, shallow wing beats. Hovers above water before dipping for prey.

Nest Identification

Shape  Location 

Reeds, grass, and leaves • on small pile of floating dried reeds or vegetation
• built by both sexes • 3 ocher or dark brownish eggs with blackish brown blotches; oval, 1.4 inches long.

Plumage Sexes similar	Habitat   	Migration Migratory	Weight 1.9 ounces
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DATE _____ TIME _____ LOCATION _____

Family LARIDAE		Species <i>Chlidonias hybridus</i>	Length 10 inches	Wingspan 27 inches
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WHISKERED TERN

A native of Eurasia, this tern nests and breeds near freshwater lakes and rivers. Winter plumage shows pale gray upperparts; white forehead; black-streaked white crown; black eye crescent; black postocular stripe that joins at the black nape; and dark red bill, legs, and feet. Juveniles have a brownish back with black mottling and a brown smudge on the breast.

- **SONG** High rasping *kik-kik-kik* note similar to that of the Black Tern but much louder and more abrasive.
- **BEHAVIOR** Frequents inland freshwater marshes. Patrols marsh with steady wing beats and dips to water surface and vegetation to pick up prey with bill. More direct flight than that of other black terns. Rarely plunge dives. Swims. Eats insects, aquatic invertebrates, and small fish.
- **BREEDING** Monogamous. Colonial. Very noisy on its breeding grounds.
- **NESTING** Incubation 18–20 days by both sexes, but female does more. Precocial young leave nest at 2–3 days but stay in nearby vegetation; tended by both sexes. May be fed by both sexes for up to 14 days. First flight at 23 days. 1 brood per year.

Flight Pattern

Buoyant direct flight with deep rapid wing beats. Often interrupts flight and hovers to pick up prey, then resumes direct flight.

Nest Identification

Shape	Location
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- **POPULATION** Accidental. In summer 1993 the same bird was spotted in coastal New Jersey and later in Delaware.
- **CONSERVATION** Vulnerable to habitat loss in its native Eurasian breeding range.

Similar Birds

BLACK TERN
In winter has blacker head; white collar; dark gray upperwings and mantle; dark bar on sides of breast • voice differs.

WHITE-WINGED TERN
In winter has white rump and tail; light wing linings; white nape and collar.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 3.1 ounces
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Family LARIDAE	Species <i>Chlidonias niger</i>	Length 9–10 inches	Wingspan 20–24 inches
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BLACK TERN

A black-bodied tern that prefers to breed and nest in the inland marshes of the North American prairie country but winters at sea. It is distinguishable by its overall black breeding plumage, gray upperparts, and dark red legs and feet. Its head and underparts turn white in winter and produce a strange-looking pied bird in late summer as winter molt begins. Winter adults have a black crown with an attached ear patch, a white collar, and a dusky black side bar. Juveniles are similar to winter adults with brownish mottling on the back and a dark carpal bar.

• SONG

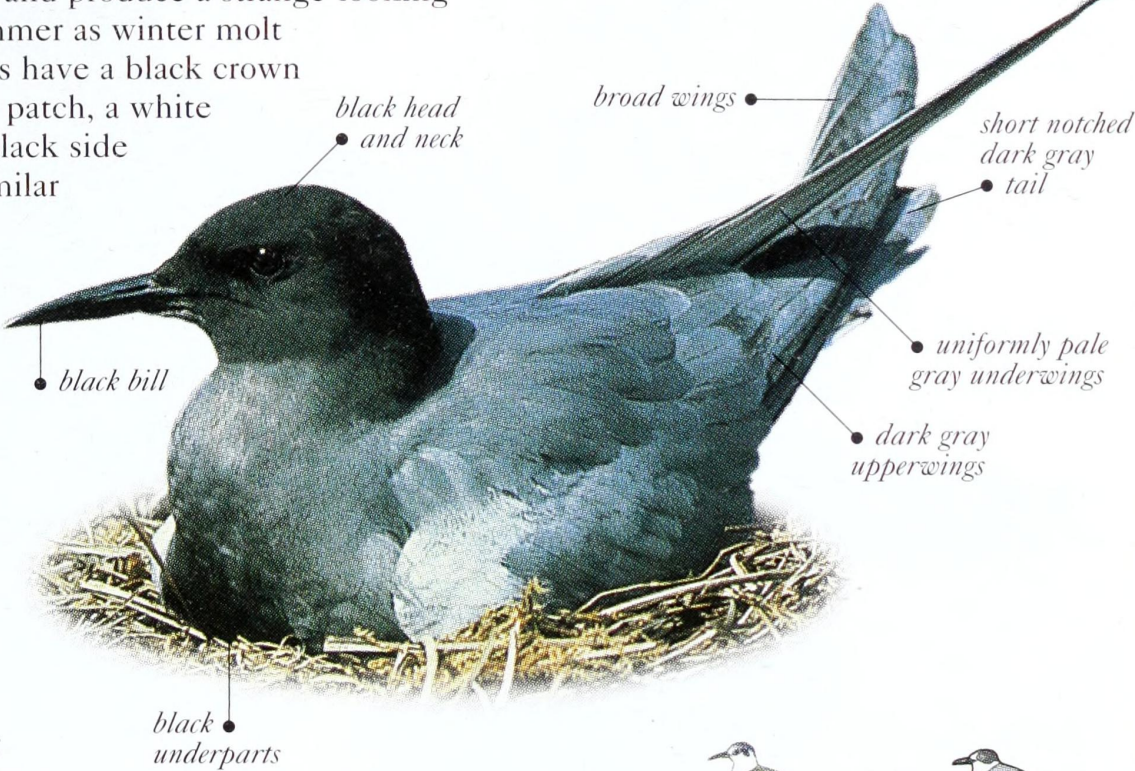
Drawn-out squeaky *ka-sheek* and abrasive *kik-kik-kik*.

• BEHAVIOR

In summer prefers inland lakes and freshwater marshes. Hovers to spot insects. Catches insects in air or swoops down to water or ground to pick up with bill. Plunge dives on occasion. Eats mostly large flying insects but also takes spiders, small fish, crayfish, and small mollusks. Follows people tilling soil and feeds on disturbed insects.

• BREEDING Monogamous. Colonial.

• NESTING Incubation 17–22 days by both sexes. Semiprecocial young leave nest after 2–3 days but remain in nearby grasses. First flight at 19–25 days, but may be fed by both sexes for up to 2 additional weeks. 1 brood per year in most regions; 2 broods per year in the South.



JUVENILE

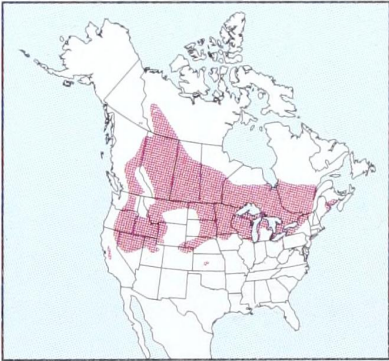


WINTER PLUMAGE

Similar Birds



WHITE-WINGED TERN
Dark red bill; black body and underwing linings; white upperwings and underwing flight feathers; white rump; slightly notched white tail.



Flight Pattern

Buoyant direct flight with deep rapid wing beats. Hovers for insects. Uneven foraging flight with much stopping and starting.

Nest Identification

Shape Location

- POPULATION Common to fairly common in the East; common in middle and western parts of range; uncommon to rare on the West Coast.
- CONSERVATION Has declined inland and on the East Coast from wetlands drainage.

Dried reeds, stalks, and grasses • on floating dried vegetation • built by both sexes • 2–4 light buff to olive eggs with black, brown, and greenish buff blotches, usually wreathed; oval to long oval, 1.7 x 1.2 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 2.3 ounces
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DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Anous stolidus</i>	Length 16 inches	Wingspan 33 inches
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BROWN NODDY

The Brown Noddy is the only noddy that nests in North America. Like other gulls and terns, it usually is tame but will become aggressive and attack any intruder that threatens its young. Nests are reused each year and become large as materials are added each breeding season. Long-winged, with a long, wedge-shaped tail, this tern appears dark overall from a distance. Adults have a grayish white cap that blends into a brown nape. Juveniles are similar to adults but have only a white line on the forehead.



- **SONG** Crowlike *karrk* or *arrowk* or harsh *eye-ak*.
- **BEHAVIOR** Pelagic in warm oceans. Sometimes forages in small flocks. Uses beak to scoop up small prey that is flushed to surface or escaping bigger fish. Eats small fish and squid that it picks from the surface or dives from the surface to catch. Does not plunge dive like other terns. Swims. Flies low over water somewhat like a shearwater.
- **BREEDING** Monogamous. Colonial. Noisy on nesting grounds, especially at night.
- **NESTING** Incubation 35–38 days by both sexes. Incubating bird fed by its mate. Young stay in nest 20 days; both sexes feed by regurgitation. First flight at about 30 days. 1 brood per year.
- **POPULATION** Common on and around Dry Tortugas. Casual in Gulf to Texas and Gulf Stream to Outer Banks of North Carolina. Accidental elsewhere when blown by storm.

Similar Birds	
	SOOTY TERN Juvenile has forked tail; lacks distinct cap; white underwing linings, lower belly, and undertail coverts.
	BLACK NODDY Smaller; darker; white cap; longer bill.

Flight Pattern	
	
Strong rapid flight with steady wing beats; often flies with erratic changes in direction.	

Nest Identification	
Shape 	
Location 	

• **CONSERVATION** Breeding colony on Dry Tortugas off Florida coast is protected.



Old tree branches and seaweed • lined with shells and bits of coral • in cacti and bay cedar bushes about 12 feet above ground • built by both sexes • 1 pinkish buff egg marked with dark reddish brown; oval to short subelliptical, 2.1 x 1.4 inches.

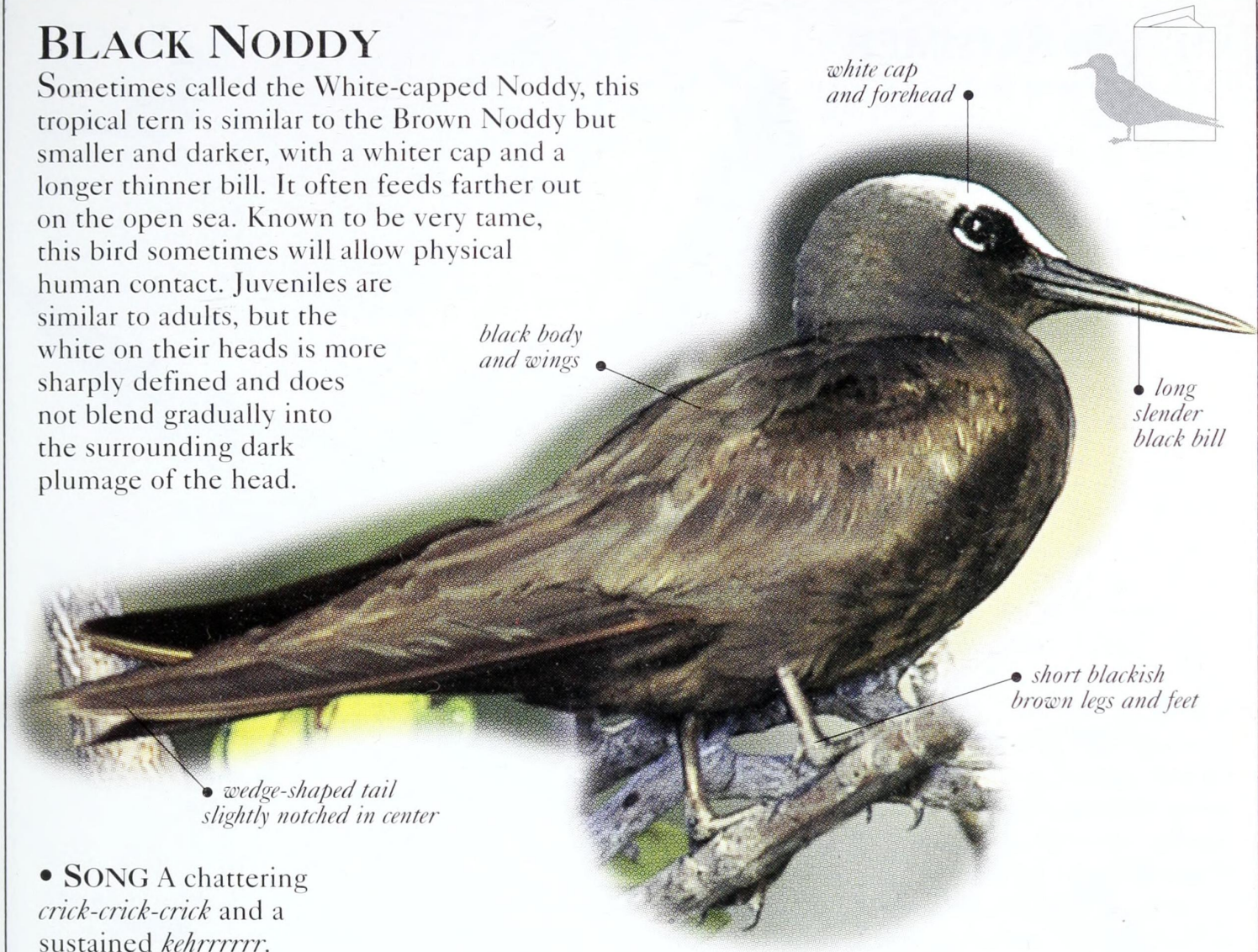
Plumage Sexes similar	Habitat   	Migration Migratory	Weight 7.0 ounces
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DATE _____ TIME _____ LOCATION _____

Family LARIDAE	Species <i>Anous minutus</i>	Length 12–13.5 inches	Wingspan 28–30 inches
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BLACK NODDY

Sometimes called the White-capped Noddy, this tropical tern is similar to the Brown Noddy but smaller and darker, with a whiter cap and a longer thinner bill. It often feeds farther out on the open sea. Known to be very tame, this bird sometimes will allow physical human contact. Juveniles are similar to adults, but the white on their heads is more sharply defined and does not blend gradually into the surrounding dark plumage of the head.



- **SONG** A chattering *crick-crick-crick* and a sustained *kehrrrrrrr*.
- **BEHAVIOR** Feeds far out at sea, using its bill to scoop up prey from the water. Often feeds in flocks. Eats small fish and squid that it picks from the surface of the water; also swims in shallow water and dives beneath the surface to catch food. Flies close to water. More sedentary than Brown Noddy, with most populations roosting at breeding sites throughout the year, departing at dawn and returning at dusk.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 34–39 days by both sexes. Young stay in nest 39–52 days, fed by both parents. 1 brood per year.

Similar Birds



BROWN NODDY
Lighter and more brown; larger; longer legs; shorter, thicker bill.

Flight Pattern



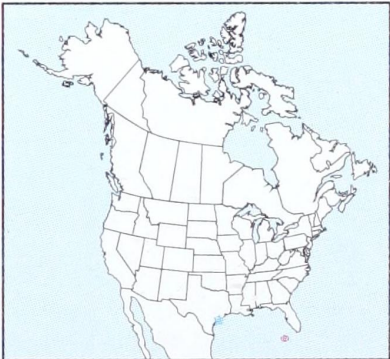
Strong, swift, and erratic, but more fluttering than Brown Noddy. Typically flies close to the surface of the ocean.

Nest Identification

Shape 

Location 

- **POPULATION** Nonbreeding individuals are uncommon to rare on the Dry Tortugas off the Florida coast with colony of Brown Noddies. Casual to Texas coast.



No nesting material if crevice is used; otherwise, dead tree branches and seaweed, lined with shells, rock, and bits of coral • cactus and bay cedar bushes, about 12 feet above ground • built by both sexes • 1 white to light red egg, tinted with buff; oval or short subelliptical, 1.7 x 1.2 inches.

Plumage Sexes similar	Habitat 	Migration Migratory	Weight 4.2 ounces
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DATE _____ TIME _____ LOCATION _____

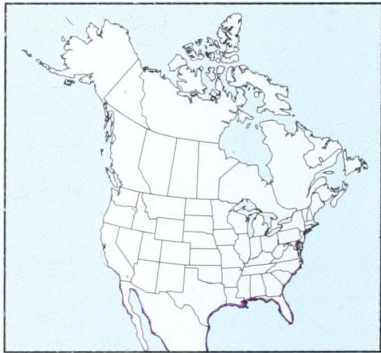
Family LARIDAE	Species <i>Rynchops niger</i>	Length 18–19 inches	Wingspan 42–50 inches
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BLACK SKIMMER

This crow-sized bird's Spanish name, *rayador*, is derived from the word *rayar*, for its habit of making lines in the ground by skimming sand around the nest with its long bill. The Black Skimmer is the largest of the world's three species and, like them, has unique compressed, knifelike mandibles, with the lower one one-third longer than the upper one. This long-winged bird has black upperparts, white underparts, a black rump and a slightly notched tail. Winter adults have a white collar.

Juveniles are similar to winter adults but they have mottled brown upperparts. Nestlings are camouflaged by their buff coloring, which blends with the seashore. The lower and upper mandibles are similar in length until young are almost fully grown.

- **SONG** Low throaty bark of *kak-kak-kak*, *kuk-kuk-kuk*, or *yap-yap-yap*. Pairs sometimes sing together, *koow-koow* or *keow-keow*.
- **BEHAVIOR** Crepuscular and partially nocturnal. Often begins foraging in late evening when waters are calmer and prey rises to surface. Flies low and skims water with lower mandible to locate prey by touch, then snaps the bill shut. Grasps small fish and crustaceans with upper mandible, tilts head, and swallows while still flying. Spends much of day loafing on beaches.
- **BREEDING** Monogamous. Small colonies.
- **NESTING** Incubation 21–23 days by both sexes. Semiprecocial young remain in nest area 23–25 days. Fed by both sexes. 1 brood per year.
- **POPULATION** Common in coastal areas. Casual to accidental inland; birds are often driven there by storms.



Flight Pattern

Graceful buoyant direct flight with measured wing beats. In perfect synchrony flocks wheel, twist, and glide.

Nest Identification

Shape

Location

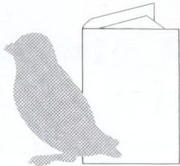
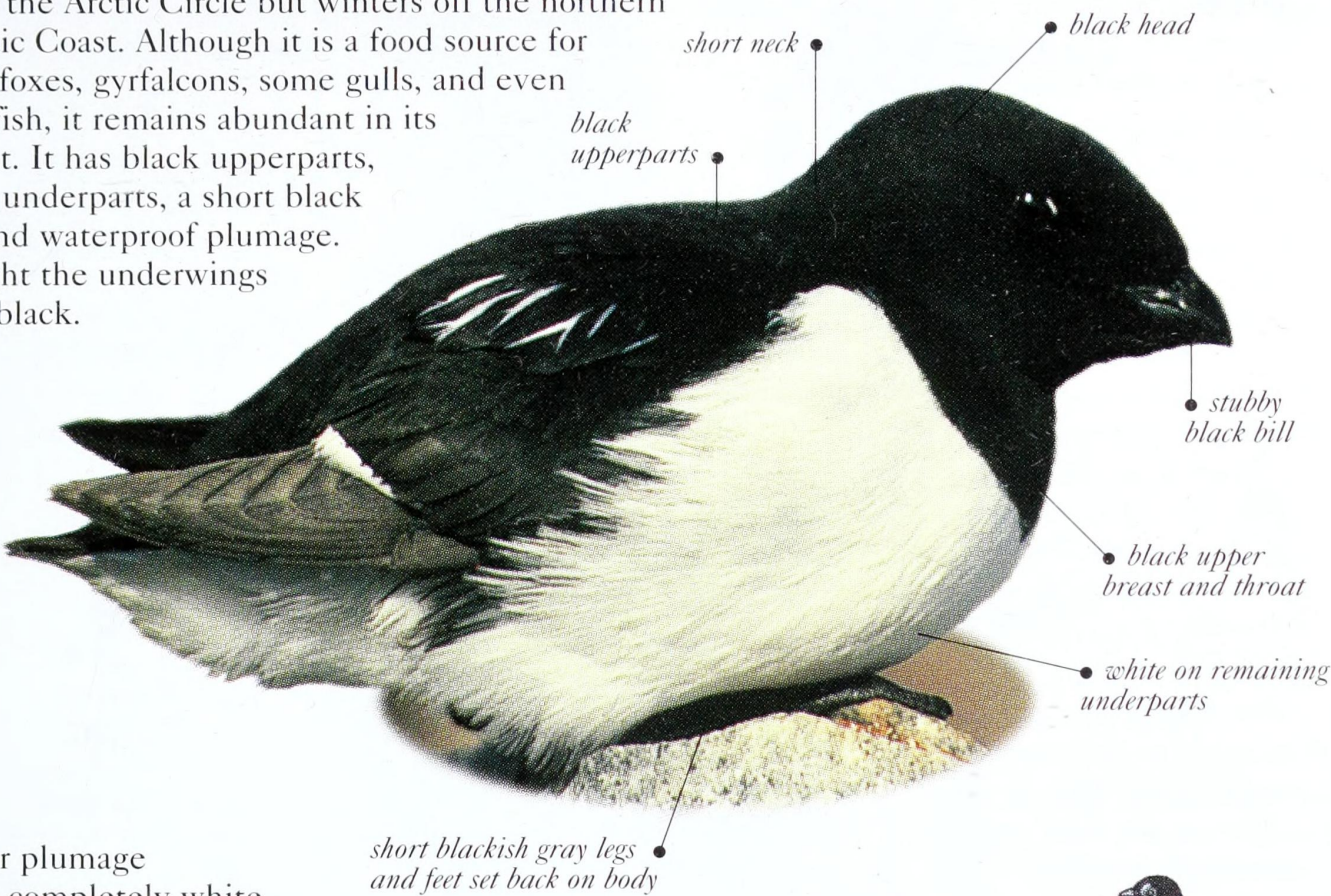
- **CONSERVATION** Vulnerable to disturbance of nesting colonies. Eggs and young often trampled by dogs or humans, especially runners on beach.
- **NO MATERIALS ADDED** • on upper beach above high tidemark • built by both sexes • 4–5 bluish white or pinkish white eggs with brown, lilac, and gray blotches; round ovate to elongated ovate, 1.3 inches long.

Plumage Sexes similar	Habitat	Migration Some migrate	Weight 12.3 ounces
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Family ALCIDAE	Species <i>Alle alle</i>	Length 8.5 inches	Wingspan 13 inches
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DOVEKIE

The smallest Atlantic alcid, this little auk, with its chubby body and proportionally large head, nests and breeds above the Arctic Circle but winters off the northern Atlantic Coast. Although it is a food source for arctic foxes, gyrfalcons, some gulls, and even large fish, it remains abundant in its habitat. It has black upperparts, white underparts, a short black bill, and waterproof plumage. In flight the underwings show black.



- Winter plumage shows completely white underparts with a white stripe curving up toward the top of the head.
- **SONG** Silent at sea. Various shrill chatters and squeaks in nesting colony.
 - **BEHAVIOR** Dives for food and flies underwater using its wings. Eats small saltwater crustaceans and small freshwater fish. Often found at sea in huge flocks. Disperses widely at sea outside breeding season.
 - **BREEDING** Monogamous. Colonial.
 - **NESTING** Incubation 24–28 days by both sexes. Semiprecocial young stay in nest 26–31 days. Fed by both sexes. 1 brood per year.
 - **POPULATION** Abundant on breeding grounds, where colonies may number in the millions. Winters irregularly offshore to North Carolina and rarely to Florida. Casual inland after winter storms.

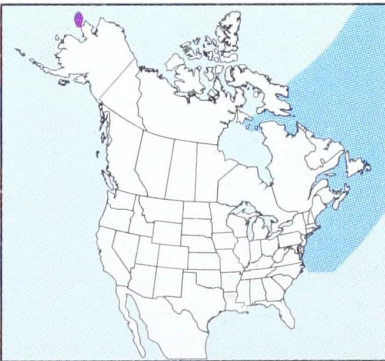


WINTER PLUMAGE

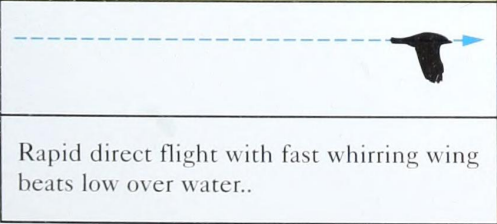
Similar Birds



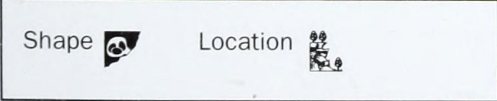
COMMON MURRE
Much larger; longer bill; longer neck.



Flight Pattern



Nest Identification



Nothing added • on bare ground hidden in crannies of rocky cliffs • 1 bluish white or green egg, usually unmarked; oval to long elliptical, 1.9 inches long.

Plumage Sexes similar	Habitat 	Migration Nonmigratory	Weight 5.7 ounces
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Family ALCIDAE	Species <i>Uria aalge</i>	Length 17.5 inches	Wingspan 28–30 inches
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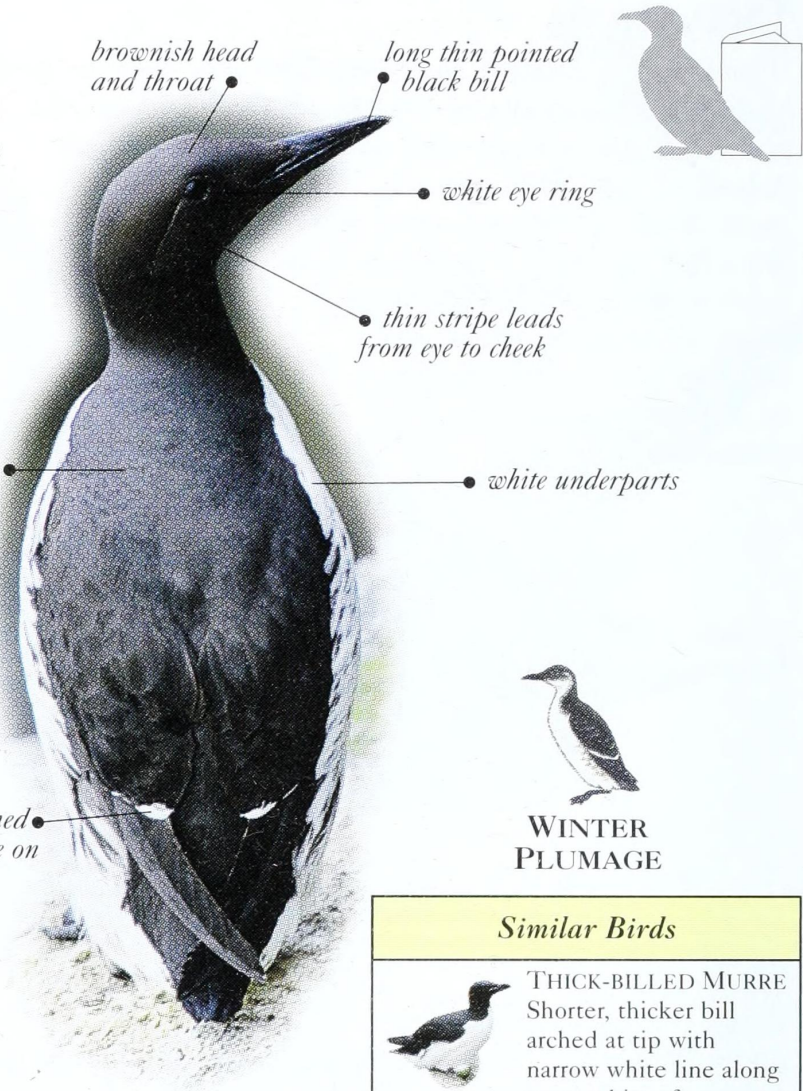
COMMON MURRE

This large-bodied, crow-sized seabird is one of the most adept divers in the alcid family and is capable of diving to depths of more than 240 feet. Like all murres its pear-shaped egg is adapted to turn in a circle rather than roll off the precipitous cliffs where these birds nest. It has dark sooty brown upperparts, including the neck and head; a long thin black bill; and white underparts. Some Atlantic birds have a narrow white eye ring and stripe extending behind eye, but most East Coast birds and all Pacific Coast birds lack the eye adornment. Winter and juvenile birds show a white throat and cheeks and a black postocular stripe.

- **SONG** Silent at sea. In flight makes soft *murrrr* sound. On nesting ground makes various low growling sounds, *arrrrrrrrrrrhh*.
- **BEHAVIOR** Gregarious. Forms large rafts on water. Feeds in flocks, diving and swimming for food. Can stay underwater for 60 seconds. Carries fish lengthwise in mouth and sticks out tail while flying. Eats mostly various fish but also takes marine invertebrates, including shrimp and squid. Droppings from huge colonies provide important fertilizer to food chain of surrounding waters.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 28–33 days by both sexes.

Semiprecocial young stay in nest 19–21 days, then leave colony and accompany adults in water while completing development. Fed by both sexes. Typically 1 brood per year.

- **POPULATION** Abundant off West and East Coasts.
- **CONSERVATION** All alcids protected by law, but still vulnerable to marine oil spills.



WINTER PLUMAGE

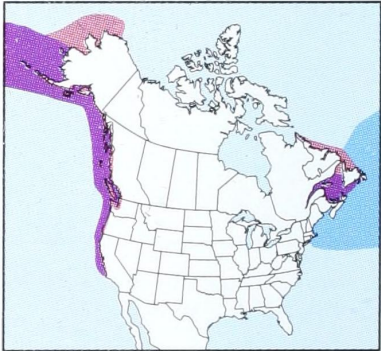
Similar Birds



THICK-BILLED MURRE
Shorter, thicker bill arched at tip with narrow white line along gape; white of underparts rises to sharp peak at throat • winter birds have darker face and neck; lack thin postocular stripe.



RAZORBILL
Larger head; deeper bill; more pointed tail; blacker upperparts • Atlantic range.



Flight Pattern

Strong flight on rapidly whirring wings. Low over water near colonies. High for long distances, often twisting and turning.

Nest Identification

Shape	Location
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No nest materials • on bare ridge of cliff; sometimes placed against pebbles held together by droppings to guard egg from rolling off ledge • 1 white, green, blue, or brown egg with dark brown spots and blotches; spindle-shaped or elongated pyriform, 3.2 inches long.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 2.2 pounds
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DATE _____ TIME _____ LOCATION _____

Family ALCIDAE	Species <i>Uria lomvia</i>	Length 18 inches	Wingspan 28–32 inches
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THICK-BILLED MURRE

Although considered one of the most common seabirds in the Northern Hemisphere, the Thick-billed Murre is threatened by fishing practices and pollution. It is still much more numerous than its close relatives, the Common Murre and Razorbill. Its bill is shorter and broader than that of the similar Common Murre, and most birds sport a narrow white line along its gape. In winter, white chin and foreneck extends onto the face to just under the eye. Juveniles are similar to winter adults but have

browner upperparts.

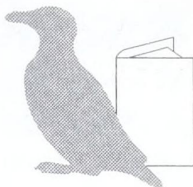
- **SONG** Silent at sea. Noisy around breeding colonies. Call sounds like *arr* or *arra* in a deep hoarse voice; similar to Common Murre but harsher and lower.
- **BEHAVIOR** Gregarious. Forms large rafts on water. Stands upright on rocks like a penguin. Forages while swimming, sometimes diving as deep as 200 feet and using wings to “fly” underwater. Eats fish, crustaceans, marine worms, and squid.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 28–35 days by both sexes. Semiprecocial young stay in nest 16–30 days; leave colony when about a third grown, and remain with parents. Fed by both sexes. 1 brood per year.

Flight Pattern	
	
Strong rapid flight low over water on short whirring wings, often with much twisting and turning of body. Groups fly in lines.	
Nest Identification	
Shape 	Location 

- **POPULATION** Common to abundant on breeding grounds. Casual, widely dispersed, off coasts rest of year. Declining.
- **CONSERVATION** Affected by oil spills, marine pollution, and entanglement or drowning in commercial fishing nets.

No nest material • 1 whitish, tan, blue, or green egg with brown and black markings; spindle-shaped or elongated pyriform, 3.2 inches long.

short thick black bill with white line on cutting edge of upper mandible



black head and neck

white chest rises to a point on black throat

sooty black upperparts

white underparts



WINTER PLUMAGE

dark yellowish brown legs and feet

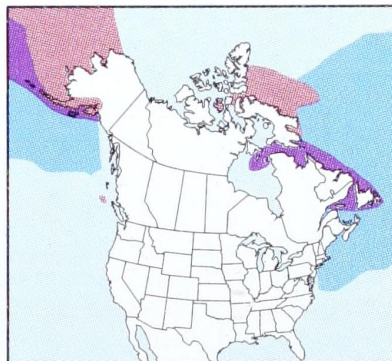
Similar Birds



COMMON MURRE
Longer, thinner bill; lacks white gape line; white of upper breast meets throat in inverted U; occasional white eye ring; brown upperparts • in winter shows more white on face and dark postocular line.



RAZORBILL
Thicker, arching bill with vertical white line across it near tip; longer tail • darker face in winter • Atlantic range.



Plumage Sexes similar	Habitat  	Migration Nonmigratory	Weight 2.1 pounds
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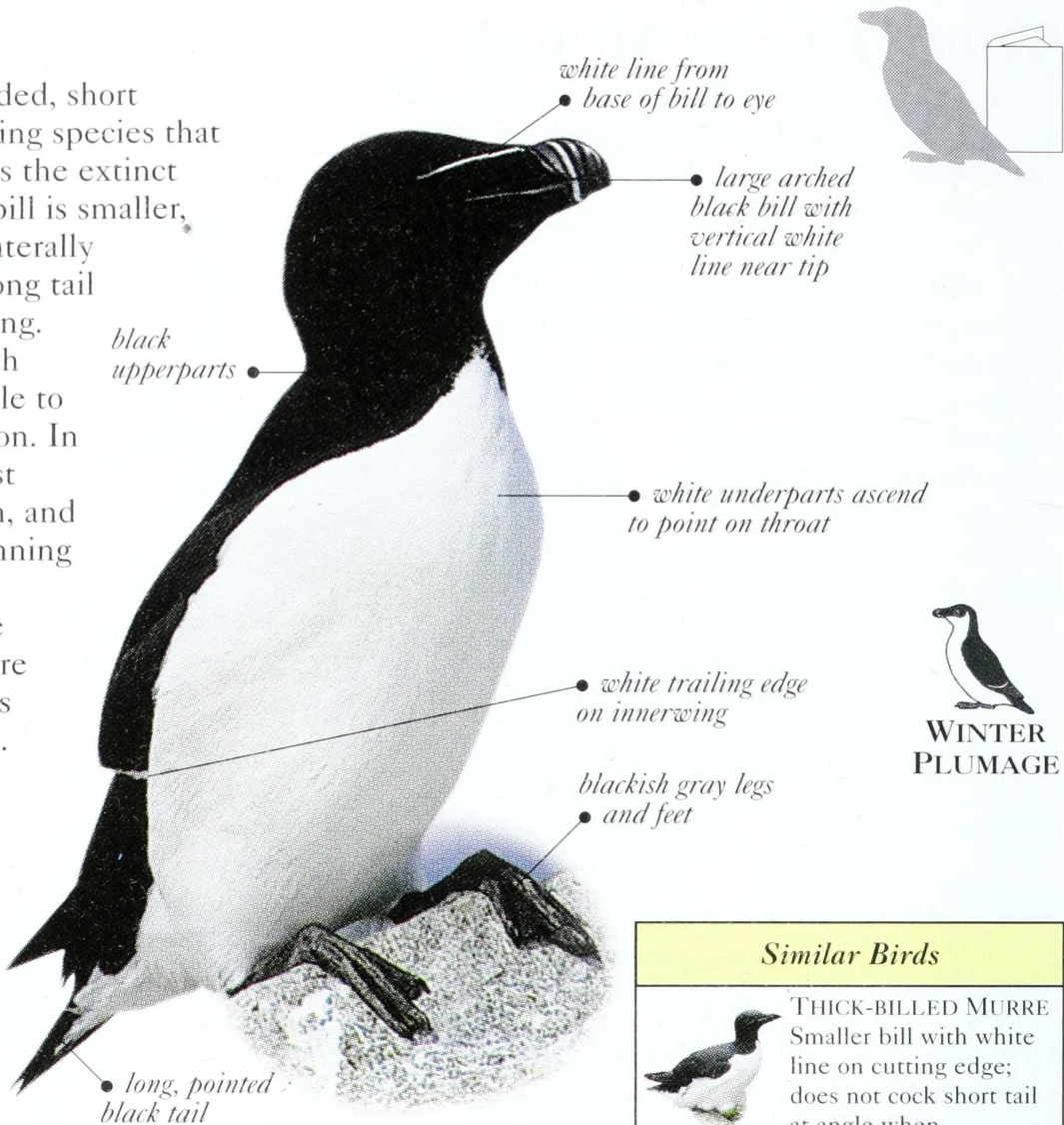
DATE _____ TIME _____ LOCATION _____

Family ALCIDAE	Species <i>Alca torda</i>	Length 16–18 inches	Wingspan 25–27 inches
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RAZORBILL

While this heavy-headed, short necked alcid is the living species that most closely resembles the extinct Great Auk, the Razorbill is smaller, and it tilts its heavy, laterally compressed bill and long tail upward when swimming. Restricted to the North Atlantic, it is vulnerable to environmental pollution. In winter the white breast extends up to the chin, and the thin white line running from the base of the upper mandible to the eye is lost. Juveniles are similar to winter adults but have a smaller bill.

- **SONG** Low long deep growling *hey al*. Occasional weak whistle.
- **BEHAVIOR** Gregarious. Ashore stands upright like a penguin. Dives from surface for food, swimming underwater with half-folded wings to depths of at least 60 feet. Eats fish, crustaceans, squid, and marine worms often taken close to the surface. Like other alcids, after young are fledged molts all flight feathers at once and is flightless on sea until feathers are replaced.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 35–37 days by both sexes. Young stay in nest 14–25 days, then leave colony before they can fly and mature at sea with parents. Fed by both sexes. 1 brood per year.



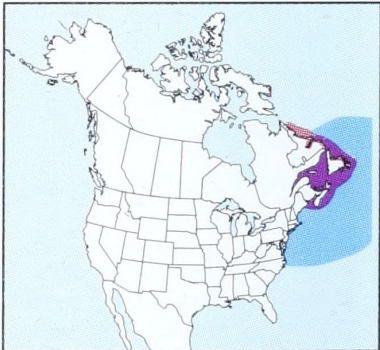
Similar Birds



THICK-BILLED MURRE
Smaller bill with white line on cutting edge; does not cock short tail at angle when swimming; longer neck; smaller head.



COMMON MURRE
Smaller bill; does not cock short tail at angle when swimming; longer neck; small head • in winter shows more white in face and black postocular stripe.



Flight Pattern



Rapid powerful flight low over water on whirring wings. Flies in straight lines when foraging or traveling long distances.

Nest Identification



- **POPULATION** Common on breeding grounds in North Atlantic. Disperses widely after breeding; in winter regularly found well offshore to North Carolina; casual to Florida coast.
- **CONSERVATION** Highly vulnerable to pollution.

Pebbles, grass, and other vegetation • sometimes no nest material • built by both sexes • 1–2 greenish, tan, or white eggs blotched with blackish brown; spindle-shaped or elongated pyriform, 3 inches long.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 1.7 pounds
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DATE _____ TIME _____ LOCATION _____

Family ALCIDAE	Species <i>Cepphus grylle</i>	Length 12–14 inches	Wingspan 23 inches
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BLACK GUILLEMOT

A shoreline inhabitant, the Black Guillemot is usually observed closer to shore than most other alcids, especially in the North Atlantic. While its population is widely dispersed, it is not as gregarious as other birds in its family. Black Guillemots sometimes can be spotted coaxing their young to fly off cliffs, dangling prey just beyond reach for encouragement. In flight note the large white wing patch, white axillaries, and white underwing linings. The inside of this bird’s mouth is bright coral orange. Winter adults and juveniles are white with mottled black upperparts.

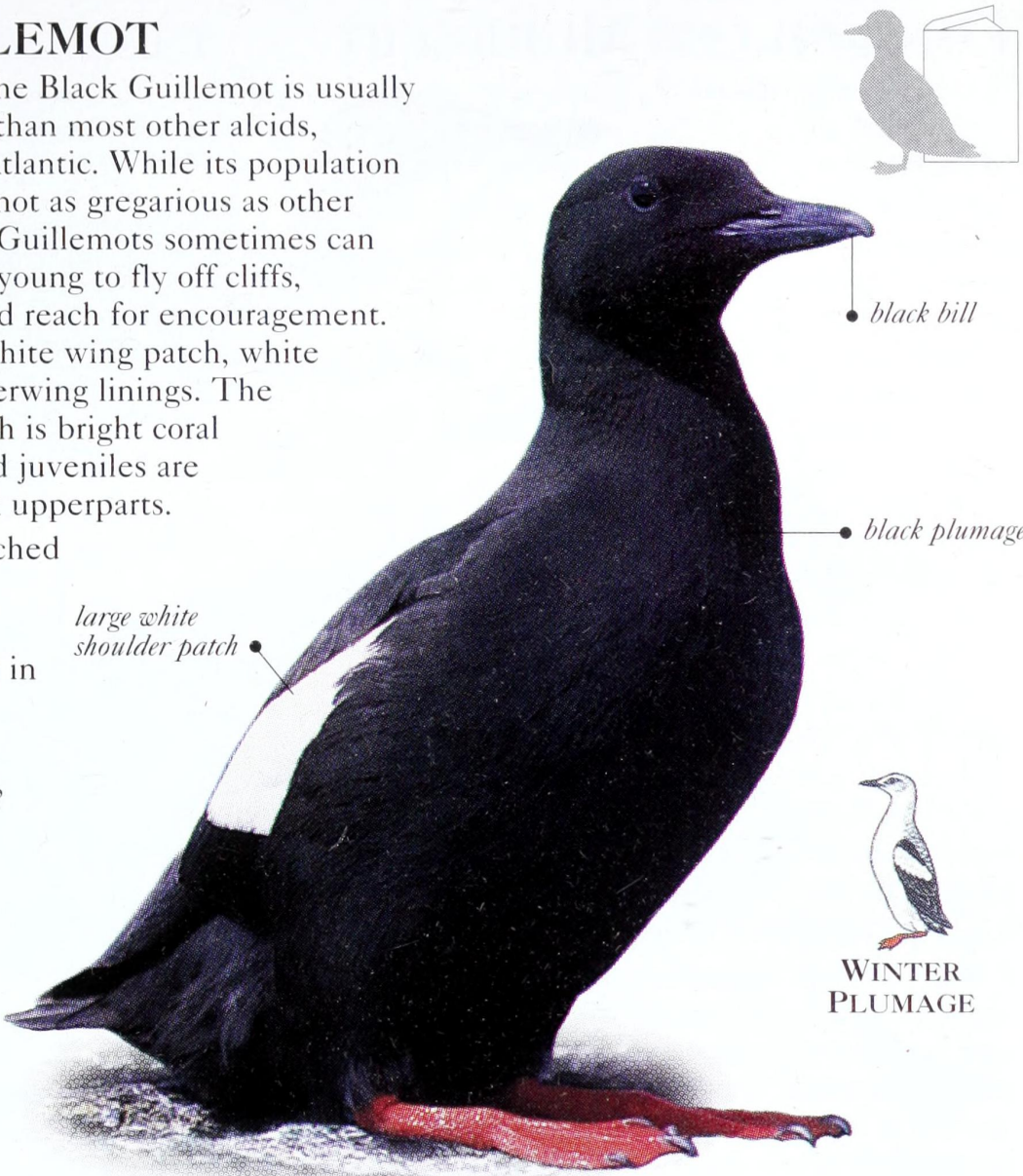
• **SONG** Weak, high-pitched whistle of *peeee*.

• **BEHAVIOR** Not gregarious but may occur in small flocks; usually in pairs or alone. Eats rock eels, small fish, mollusks, crustaceans, insects, marine worms, and some vegetation. Often surface dives 30–100 feet underwater to forage for food under loose stones while swimming with wings. In flight flashes white patches and dangles red feet behind tail.

• **BREEDING** Monogamous. Semicolonial to colonial (colonies of only a few pairs).
• **NESTING** Incubation 23–39 days by both sexes. Semiprecocial young stay in nest 35 days. Fed by both sexes. 1 brood per year.

• **POPULATION** Fairly common on breeding grounds; disperses after breeding.

• **CONSERVATION** Introduction of predators to nesting areas poses danger, but birds still numerous, Geographically dispersed nesting areas help offset the threat. Vulnerable to oil spills.

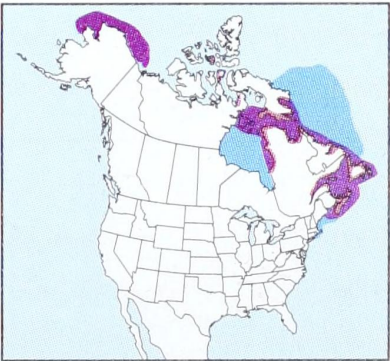


WINTER PLUMAGE

Similar Birds



PIGEON GUILLEMOT
Dusky wing linings and axillaries; black bar on white shoulder patch.
• Pacific Coast range.



Flight Pattern	
	Direct flight with rapid wing beats low over water.
Nest Identification	
Shape	Location

Made of debris and small stones • often near driftwood • built by both sexes
• 1–2 white eggs, sometimes tinted with bluish green, with black, brown, and gray markings; long elliptical to pyriform, 2.3 inches long.

Plumage Sexes similar	Habitat	Migration Most do not migrate	Weight 14.3 ounces
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DATE _____ TIME _____ LOCATION _____

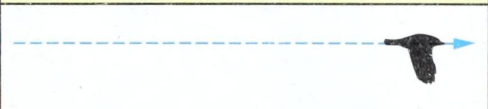
Family ALCIDAE	Species <i>Brachyramphus perdix</i>	Length 11.5 inches	Wingspan 18 inches
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LONG-BILLED MURRELET

A close Asiatic relative of the Marbled Murrelet, the Long-billed was only recently determined to be a separate species; it is larger, has a longer wingspan, longer bill, and some small plumage differences. Like other alcids, it is an adept diver and is able to “fly” underwater by using its wings as propelling oars. Winter plumage shows white underparts, unbroken grayish black upperparts with a black cap extending below the eyes, a blackish nape with a pair of small paler oval patches, and whitish underwing median primary coverts. Juveniles are similar to winter adults.

- **SONG** Repeated call of *meer, meer* in flight and on water.
- **BEHAVIOR** Gregarious most of the year. Pairs in breeding season. Oceanic. Nomadic. Most numerous on coastal waters and bays. Dives underwater from surface to find food. Eats fish and crustaceans. Nests far from water in coniferous forests in masses of lichen on tree branches. Winters on open seas near breeding grounds. Swims well. Runs to take off from water’s surface, flying low on whirring wings. Flies high when going between nesting and foraging sites.
- **BREEDING** Monogamous. Solitary nester. Little known about the breeding biology of this species.
- **NESTING** Incubation estimated at 27–30 days by both sexes. Young semiprecocial; stay in nest estimated 27 days, fed by both sexes. 1 brood per year.
- **POPULATION** Rare to casual throughout North America, especially in fall and winter.

Flight Pattern



Strong fast direct flight, often close to the water, on rapidly whirring wings.

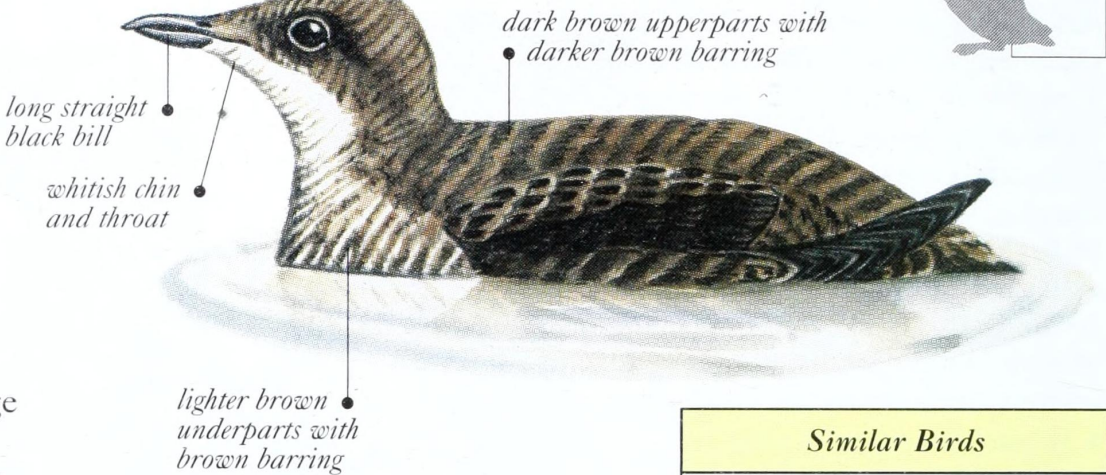
Nest Identification

Shape 

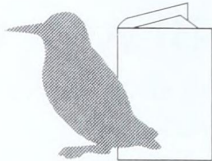
Location 

• **CONSERVATION** Vulnerable to loss of nesting habitat due to logging operations as well as oil spills and other pollution of the marine environment.

Moss and lichen • far from ocean, on branch of coniferous tree, up to 23 feet above ground • built by both sexes • 1 bluish green egg, with dark spots; subelliptical, 2.4 x 1.5 inches.



WINTER PLUMAGE



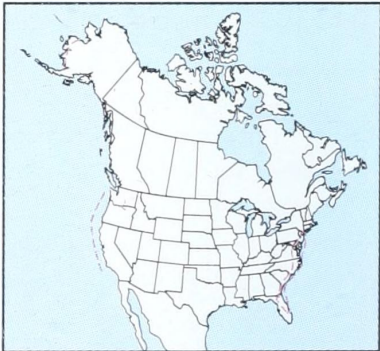
Similar Birds



MARBLED MURRELET
Breeding plumage shows tawny cinnamon underparts mottled and barred blackish; brown, white, and sandy buff-marbled underparts; dark gray underwings • winter plumage shows blackish partial breast band; black cap extending below eyes onto cheeks; white half-collar extending up to sides of nape • western range.



KITTLITZ'S MURRELET
Shorter bill • breeding plumage shows more marbled buffy speckling on upperparts; white outer tail feathers; whiter underparts • winter plumage shows whiter face with white extending above eyes to sides of crown • western range.



Plumage Sexes similar	Habitat 	Migration Nonmigratory	Weight Undetermined
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DATE _____ TIME _____ LOCATION _____

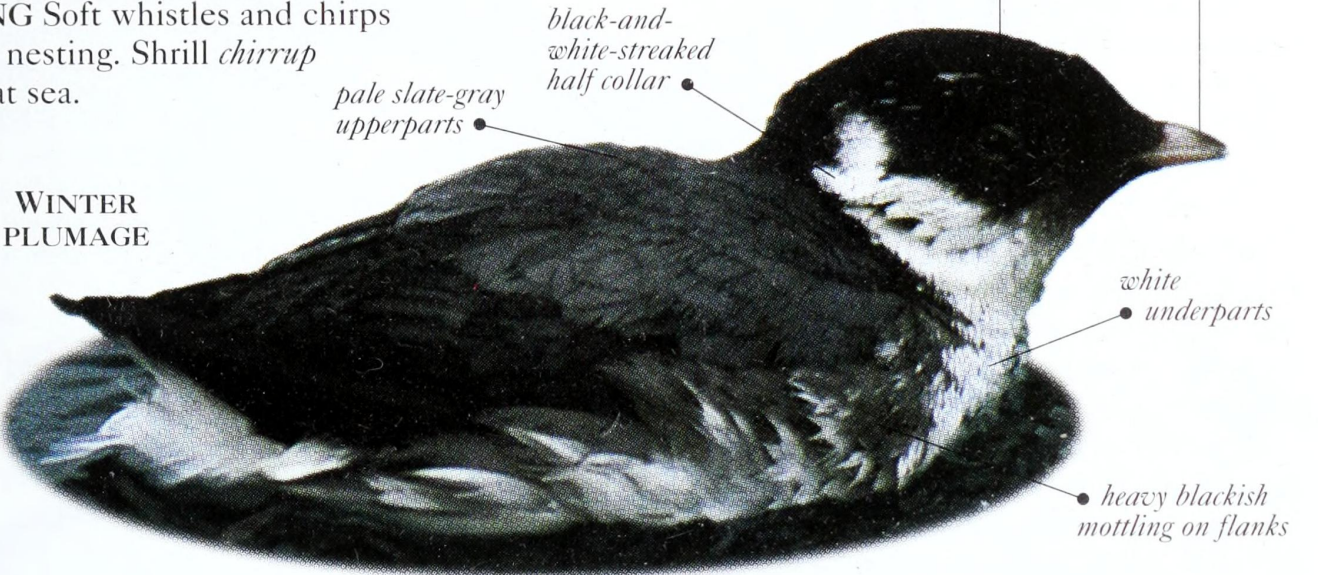
Family ALCIDAE	Species <i>Synthliboramphus antiquus</i>	Length 10 inches	Wingspan 16 inches
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ANCIENT MURRELET

This little auk is named for the gray coloring on its back, thought to resemble a shawl worn across the shoulders of an elderly person, and for the white streaking on the sides of the crown in breeding plumage, which adds to the “ancient look.” In flight it crooks its head upward and shows a black side bar contrasting with the white wing linings and white underparts; legs and feet are grayish. Juveniles are similar to winter adults but have a whitish throat and chin and lack any white streaking on the sides of the crown.

- **SONG** Soft whistles and chirps during nesting. Shrill *chirrup* while at sea.

WINTER PLUMAGE



- **BEHAVIOR** Nomadic. Nocturnal on breeding grounds. Dives and swims underwater using wings. Eats crustaceans and small fish brought to surface by tides. Young raised at sea and recognize parents through auditory means.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 32–36 days by both sexes. Young remain in nest for 3 days, then are led to sea by parents. Not fed in nest. Young are tended by both sexes at sea for 28 days. 1 brood per year.
- **POPULATION** Uncommon to common on Aleutians and other islands in Bering Sea. Winters offshore to central California and rarely to southern California. Casual to accidental inland throughout continent.

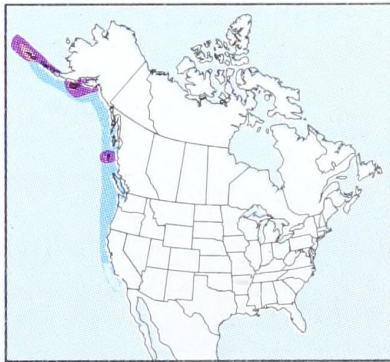


BREEDING PLUMAGE

Similar Birds



MARbled MURRELET
Smaller; black bill • in winter has black back with white line bordering scapulars.



Flight Pattern

Swift direct flight on rapidly whirring wings close to water; often stops midflight and drops into water.

Nest Identification

Shape

Location

- **CONSERVATION** Declining because of accidental introduction of rats on nesting islands and introduction of foxes and raccoons for fur production. Is vulnerable to offshore oil spills.

Lined with dry grass, twigs, and leaves • built by both sexes • 1–2 light brown or olive-brown eggs, sometimes tinged with blue and brown evenly distributed speckles; elongated, 2.3 x 1.5 inches.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 7.3 ounces
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DATE _____ TIME _____ LOCATION _____

Family ALCIDAE	Species <i>Fratercula arctica</i>	Length 12 inches	Wingspan 21–24 inches
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ATLANTIC PUFFIN

Formerly called the Common Puffin, this is the only puffin nesting on the Atlantic Coast. Because the eggs are laid in burrows, incubating birds are able to take long breaks and often walk around the nesting grounds socializing with other puffins. In flight it shows rounded grayish underwings and white underparts separated by a black collar. Winter birds have smaller yellow-edged bills and darker faces. Juveniles have even smaller bills.

- **SONG** Usually silent at sea. In flight makes soft purring sounds. At breeding sites this bird gives a low growl-like *arrrr*.
- **BEHAVIOR** Tame and trusting at colonies. Upright posture. Eats crustaceans and small fish. Searches for food 50–200 feet underwater. Can carry 10 or more fish at once; arranges fish crosswise in bill as they are caught and transports them back to nest with heads and tails dangling out on either side. Winters at sea far from land, where prenuptial molt renders birds briefly flightless just prior to breeding season. Often patters across water to become airborne.
- **BREEDING** Monogamous. Colonial. Males fight each other on water during courtship.
- **NESTING** Incubation 39–45 days by both sexes. Semiprecocial young stay in nest 38–44 days. Fed by both sexes, then abandoned by parents who swim out to sea. Nestling fasts in burrow for about a week until able to swim out to sea, usually departing colony at dark. First flight at about 49 days. 1 brood per year.
- **POPULATION** Common but local in breeding season. In winter casual at sea to North Carolina.

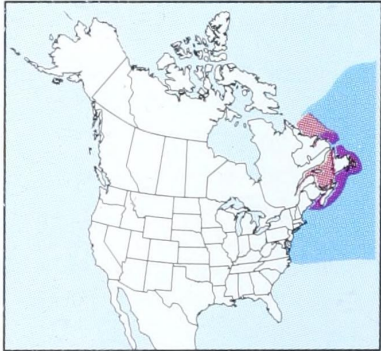
- **CONSERVATION** Has been declining since the 19th Century due to hunting and introduction of predators such as rats, cats, dogs, and foxes to nesting grounds. Vulnerable to oil spills.



Similar Birds



RAZORBILL
Black bill; black hood; lacks black collar; black legs and feet; white trailing edge on wing; white underwing linings.



Flight Pattern

Swift direct flight with rapid wing beats often close to water.

Nest Identification

Shape Location

Burrow in loose soil with entrance hidden by rocks • lining, if present, composed of grass, feathers, seaweed, and leaves • male does most of excavating with some help from female • 1 white egg, sometimes with brown or lavender blotches; round, 2.5 inches long.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 13.4 ounces
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DATE _____ TIME _____ LOCATION _____

Family COLUMBIDAE

Species *Columba livia*

Length 13–14 inches

Wingspan 24–25 inches

ROCK DOVE

Introduced into North America by Europeans in the early 1600s, the Rock Dove is often called homing pigeon or carrier pigeon. Early Romans are said to have used the Rock Dove to carry the report of Caesar’s conquest of Gaul back to Rome, and legend says the Rock Dove brought news of Napoleon’s defeat at Waterloo to England days before messages sent via horses and ships. Although native to wild rocky habitats, today these birds are most common in urban and rural settings, and they are still raised in coops or pigeon lofts. They can vary in color from wildtype to browns, grays, white-

gray, mosaics, or pure white, but they always show a white rump pattern.

- **SONG** Sings a repetitive cooing *coo-a-roo*, *coo-roo-cooo* or *cock-a-war* or *coo-cuk-cuk*.
- **BEHAVIOR** In wild eats grass, weed seeds, grains, clover, and berries. In cities eats bread crumbs and garbage. Will take food from the hand, but when frightened claps wings over the back while flying up. Has been known to fly faster than 85 miles per hour.
- **BREEDING** Male displays by turning in circles while cooing. Monogamous.
- **NESTING** Incubation 16–19 days by both sexes. Altricial young remain in nest about 27–35 days. Fed by both parents. Young thrust bills into parents’ mouths to eat regurgitated food. 5 or more broods per year.

Flight Pattern



Swift direct flight with rapid wing beats.

Nest Identification

Shape		Location	  
	 		

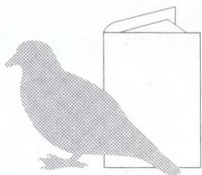
Unlined platform of sticks, twigs, leaves, grasses • building ledges, barn rafters, gutters, sheltered cliff edges, or rocks • built by female with materials gathered by male • 2 white eggs, about 1.6 inches long.

Plumage Sexes similar

Habitat  

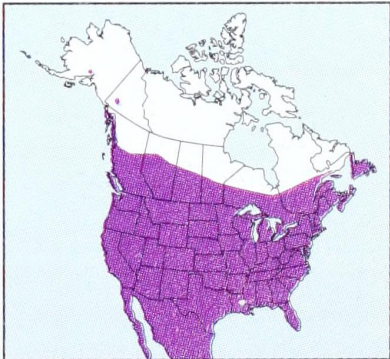
Migration Nonmigratory

Weight 13.0 ounces



Similar Birds

	BAND-TAILED PIGEON West • white bar on nape; broad gray tail band; lacks white rump.
	MOURNING DOVE Much smaller; long pointed tail; lacks white rump patch.



Family COLUMBIDAE	Species <i>Columba squamosa</i>	Length 15 inches	Wingspan 24.75 inches
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SCALY-NAPED PIGEON

Named for the chestnut and metallic purple feathers on its neck that give it a scaly appearance, this native of Antilles, West Indies, feeds in the treetops. In rare instances Scaly-naped Pigeon strays have been sighted in the Florida Keys. From a distance its dark reddish purple head appears dark gray. Females resemble males, but the bare skin surrounding the eye of a female is yellow rather than red. This treetop Caribbean inhabitant is difficult to observe.

• **SONG** Graduated deep resonant *cru-cru'-cru cu coo*, similar to White-crowned Pigeon but higher and less guttural.

• **BEHAVIOR** A gregarious and social bird. Known to roost in flocks. Generally it is arboreal. The Scaly-naped Pigeon prefers to inhabit well-wooded hillsides and fruit plantations. Its primary diet consists of large tree fruits, berries, grains, and snails. For water, it usually visits waterholes and freshwater ponds in the early morning and also in the evening.

• **BREEDING** Monogamous. Stays with one mate for life.
• **NESTING** Incubation 18–20 days by both sexes. Young leave nest in 27–30 days. Fed by both sexes. 1–2 broods per year.
• **POPULATION** The Scaly-naped Pigeon is accidental in the Florida Keys. It is a bird that is fairly common in the Caribbean on the Greater and Lesser Antilles islands.



Similar Birds

ROCK DOVE
Wild type has darker head and neck than body; gray upperparts; white rump; black bars on upperwing.

WHITE-CROWNED PIGEON
Juveniles are dark grayish black overall with a grayish brown crown.



Flight Pattern

Swift direct flight with rapid deep wing beats and long neck protruding.

Nest Identification

Shape

Location

Sticks and twigs • in tree, shrub, or cliff crevices • built by both sexes
• 1–2 white eggs; oval to elliptical, 1.6 x 1.1 inches.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 8.8 ounces
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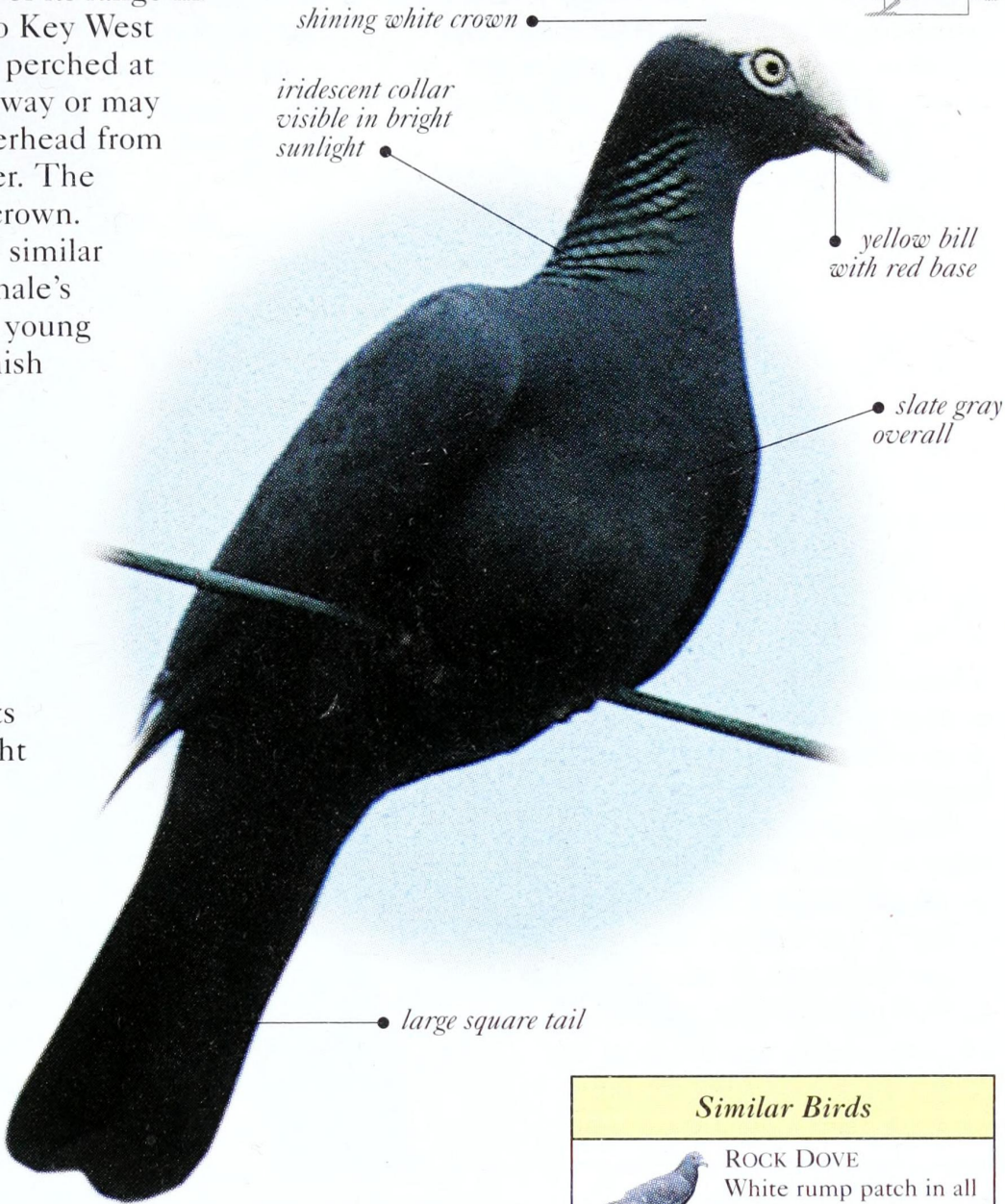
DATE _____ TIME _____ LOCATION _____

Family COLUMBIDAE	Species <i>Columba leucocephala</i>	Length 14–15 inches	Wingspan 25 inches
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WHITE-CROWNED PIGEON

Widespread in the West Indies this species reaches the northern limit of its range in South Florida. Travelers to Key West often see these dark birds perched at close range along the highway or may spot large flocks flying overhead from one feeding area to another. The male has a shining white crown. Females and juveniles are similar in appearance, but the female's crown is dull white, while young birds have a gray or brownish gray crown.

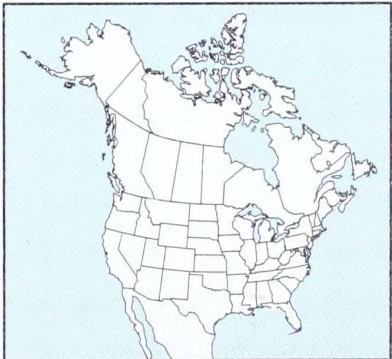
- **SONG** Owl-like, tremulous *wof, wof, woo, cowoo* or a loud, deep *coo-cura-cooo* or *coo-croo*.
- **BEHAVIOR** Usually lives in trees and shrubs. Eats berries, seeds, and some insects. Seldom visits ground. Often seen in flight above trees, especially in early morning and when returning to roosts at evening.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 18–20 days by both sexes. Altricial young fed by both sexes; leave nest after 30–35 days. Up to 3 broods per year.
- **POPULATION** Fairly common. Stable in Florida; decreasing in Caribbean.



Similar Birds



ROCK DOVE
White rump patch in all plumages; generally not uniformly dark; lacks white crown.



Flight Pattern



Swift direct flight with strong rapid wing beats.

Nest Identification

Shape  Location   

Twigs, grass, and roots • lined with grasses and fine material • in low fork of tree • built by both sexes • 1–2 unmarked white eggs, 1.4 x 1 inches.

Plumage Sexes similar	Habitat    	Migration Migratory	Weight 9.2 ounces
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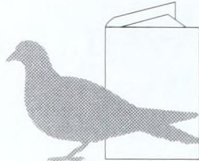
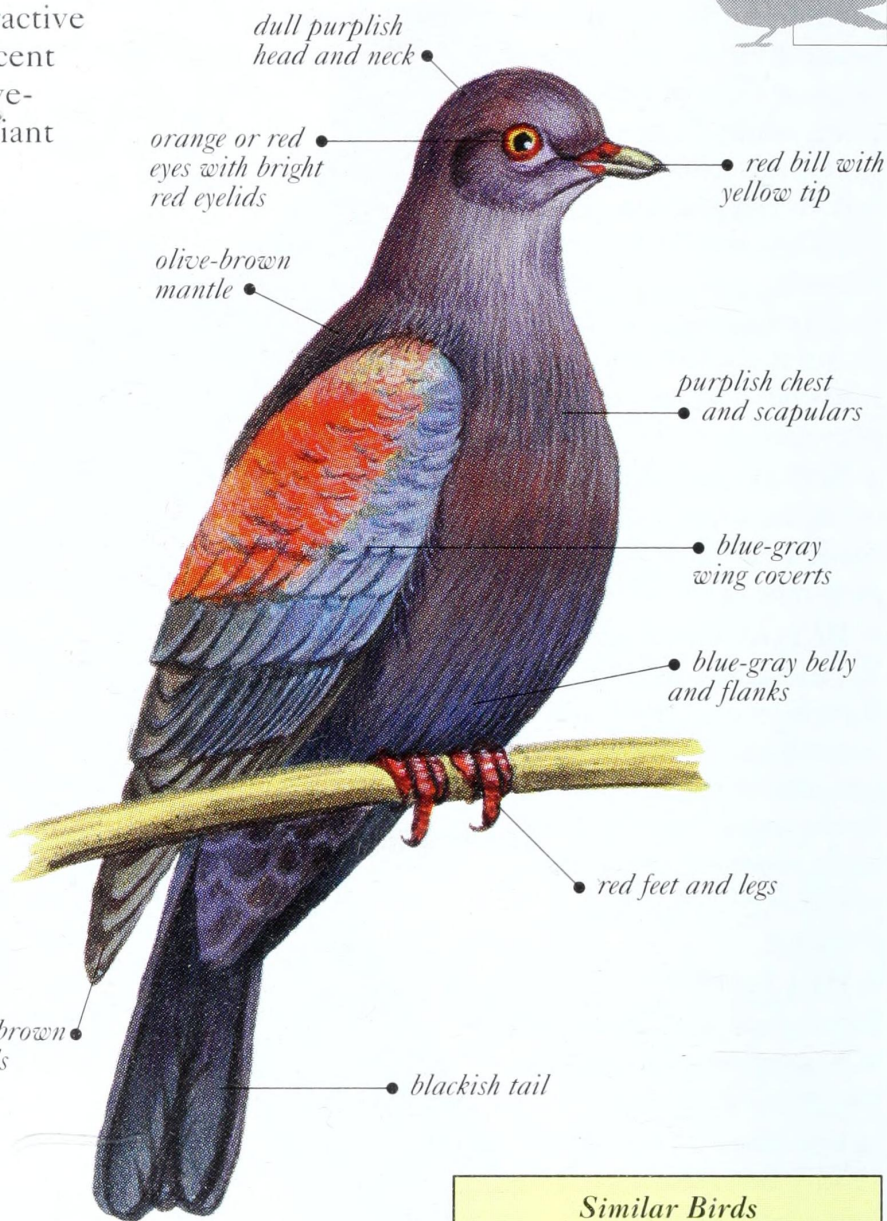
DATE _____ TIME _____ LOCATION _____

Family COLUMBIDAE	Species <i>Columba flavirostris</i>	Length 13–14 inches	Wingspan 24 inches
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RED-BILLED PIGEON

Appearing plain and dark at first glance, the Red-billed Pigeon is unusually attractive when bright sunlight hits its iridescent colors of purple, blue-gray, and olive-brown, which contrast with its brilliant red markings. In flight it shows a blue-gray rump. Small numbers of this shy native of Mexico and Central America nest in the dense woods of the lower Rio Grande Valley. Being fond of water, the Red-billed Pigeon makes frequent visits to sandbars in streams to drink and bathe.

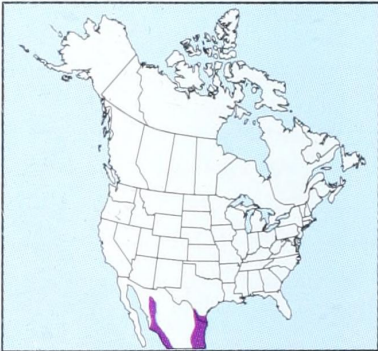
- **SONG** Unique call uttered most often in early spring or summer. It gives a high-pitched, drawn-out *whooooo*, *oo'koo-koo-koo*.
- **BEHAVIOR** Often seen as solitary individuals or in pairs. After breeding season forages in flocks for seeds, nuts, figs, and also small fruits in trees. Generally perches high in trees above a brushy understory. In Texas, it forages in stubble fields with other doves and pigeons, eating waste grain. Although the species is primarily nonmigratory, many Texas birds retreat to Mexico in late fall or winter.
- **BREEDING** Monogamous. Mating may begin in February.
- **NESTING** Incubation 18–20 days by both



Similar Birds



ROCK DOVE
White rump patch in all plumages.



sexes. Altricial young fed by both sexes. Young leave nest at 25–30 days. 1–2 broods per year.

- **POPULATION** Uncommon in spring and summer. Rare in winter. Declining in Texas.
- **CONSERVATION** Hunted in Mexico.

Flight Pattern



Swift, strong, slightly floppy direct flight.

Nest Identification

Shape 	Location   
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Flimsy platform of twigs • lined with grass, stems, and rootlets • in tree, shrub, or vine 8–30 feet above ground • built by both sexes • 1, rarely 2, glossy unmarked white eggs; about 1.5 x 1 inches.

Plumage Sexes similar	Habitat    	Migration Nonmigratory	Weight 11.4 ounces
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DATE _____ TIME _____ LOCATION _____

Family COLUMBIDAE	Species <i>Columba fasciata</i>	Length 14–15 inches	Wingspan 25 inches
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BAND-TAILED PIGEON

Reduced in numbers by overhunting, the Band-tailed Pigeon has recovered as a result of bans on hunting in several states. It is generally found in woods and wooded canyons in mountains, where it perches for long periods of time in the tops of leafless trees. Large flocks often gather at water holes and salt licks.

- **SONG** An owl-like repetitive *oo-whoo* or *whoo-oo-whoo*. During nesting season male utters deep smooth tremulous *whoo-whoo-hoo* or two-syllable *whoo-uh*.
- **BEHAVIOR** Not as gregarious as some other species of doves and pigeons, these birds often perch in small groups high in trees on open branches. Small flocks may fly together to water holes or to forage. In winter these flocks may number several hundred birds, rarely thousands. Flutters among branches to pick berries.



Also eats wild peas, grains, seeds, nuts, and insects.

- **BREEDING** Male calls to female from open perch in tree. Monogamous. Scattered pairs or occasionally small colonies.
- **NESTING** Incubation 18–20 days by both sexes. Young stay in nest 25–30 days. Tended by both parents. Young fed by regurgitation of seeds, fruits, berries, and pigeons' milk.

2–3 broods per year.

- **POPULATION** Uncommon to fairly common; local.
- **CONSERVATION** Nearly extirpated from overhunting, but has recovered with restraints on hunting.

Flight Pattern



Swift strong direct flight.

Nest Identification

Shape 

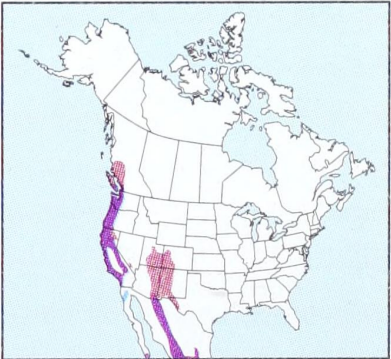
Location 

Flimsy platform of twigs • usually in tree branches or forks 8–40 feet above ground • built by female with materials gathered by male • 1–2 unmarked white eggs, 1.6 x 1 inches.

Similar Birds



ROCK DOVE
White rump; no contrasting gray band at end of tail.



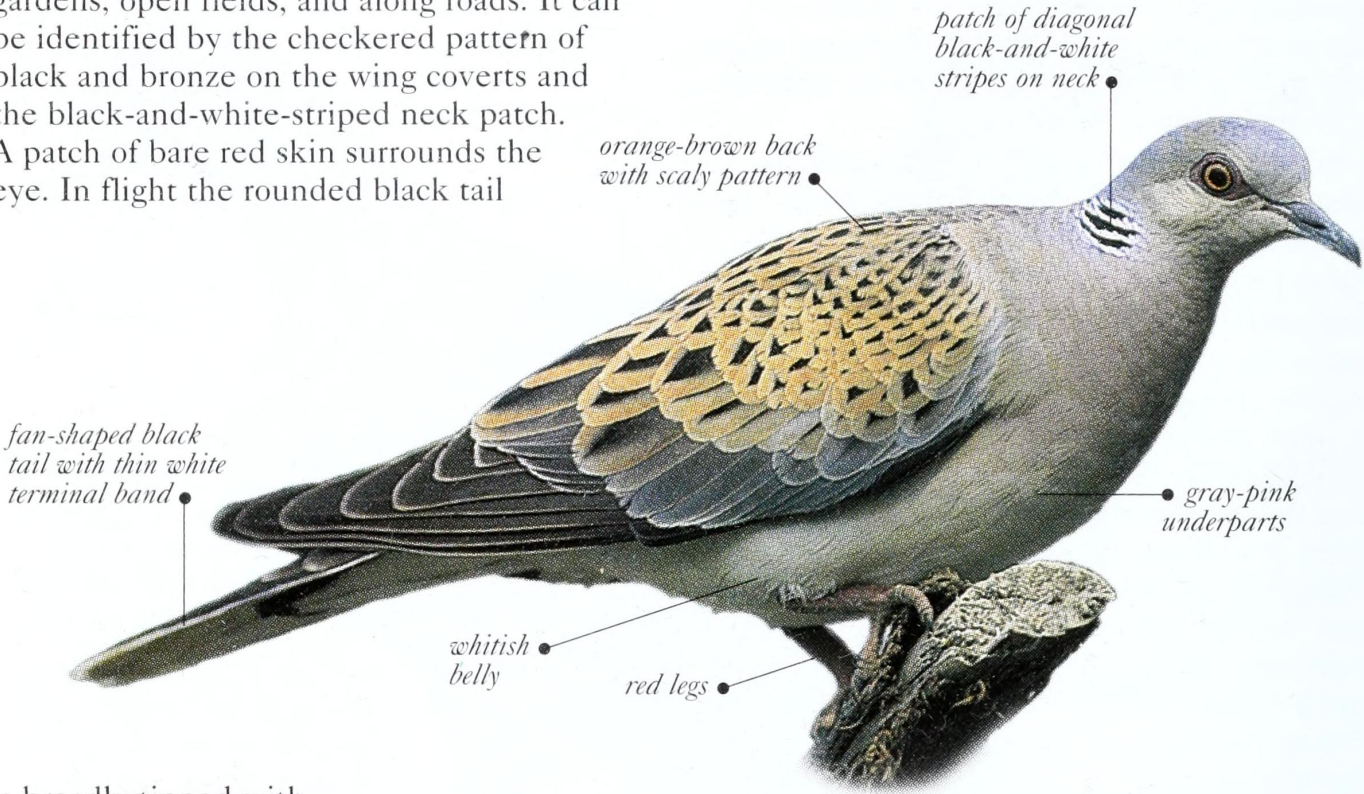
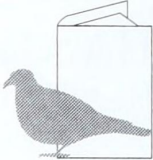
Plumage Sexes similar	Habitat 	Migration Migratory	Weight 12.5 ounces
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DATE _____ TIME _____ LOCATION _____

Family COLUMBIDAE	Species <i>Streptopelia turtur</i>	Length 8.5–9.5 inches	Wingspan 13–14 inches
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EUROPEAN TURTLE-DOVE

This Eurasian native has been seen once in North America. In the Old World it is a gregarious dove that is not shy around humans and feeds in gardens, open fields, and along roads. It can be identified by the checkered pattern of black and bronze on the wing coverts and the black-and-white-striped neck patch. A patch of bare red skin surrounds the eye. In flight the rounded black tail



is broadly tipped with white. Juveniles are similar to adults but lack the patch of diagonal stripes on the neck.

- **SONG** Distinctive bold *turr-turr*, *turr-turr* and soft melodic purring. The European Turtle-Dove represents one of the distinctive bird voices of Europe in the summer, when the soft low purring cooing fills the air.
- **BEHAVIOR** Gregarious; occurs in small groups or flocks after the breeding season. Feeds primarily on various seeds, tender leaves, and buds in open areas, forests along roadsides, and agricultural areas. Spends much time on the ground.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 13–14 days by both sexes. Altricial young fledge nest at 20 days. Young are fed by both sexes. 2–3 broods per year.

Similar Birds

Similar to no other North American species in the observed range.

Flight Pattern

Graceful swift direct flight with rapid wing beats. Similar to that of a pigeon.

- **POPULATION** Common in Eurasia. Accidental in North America with 1 record in 1990 in Florida Keys; some question origin of this bird.
- **FEEDERS** Attends feeders for small grains; also frequents birdbaths and pools.



Nest Identification

Shape Location

Twigs, sticks, and leaves • flimsy • built by both sexes • in low tree or bush • 2 white eggs, 1.2 inches long.

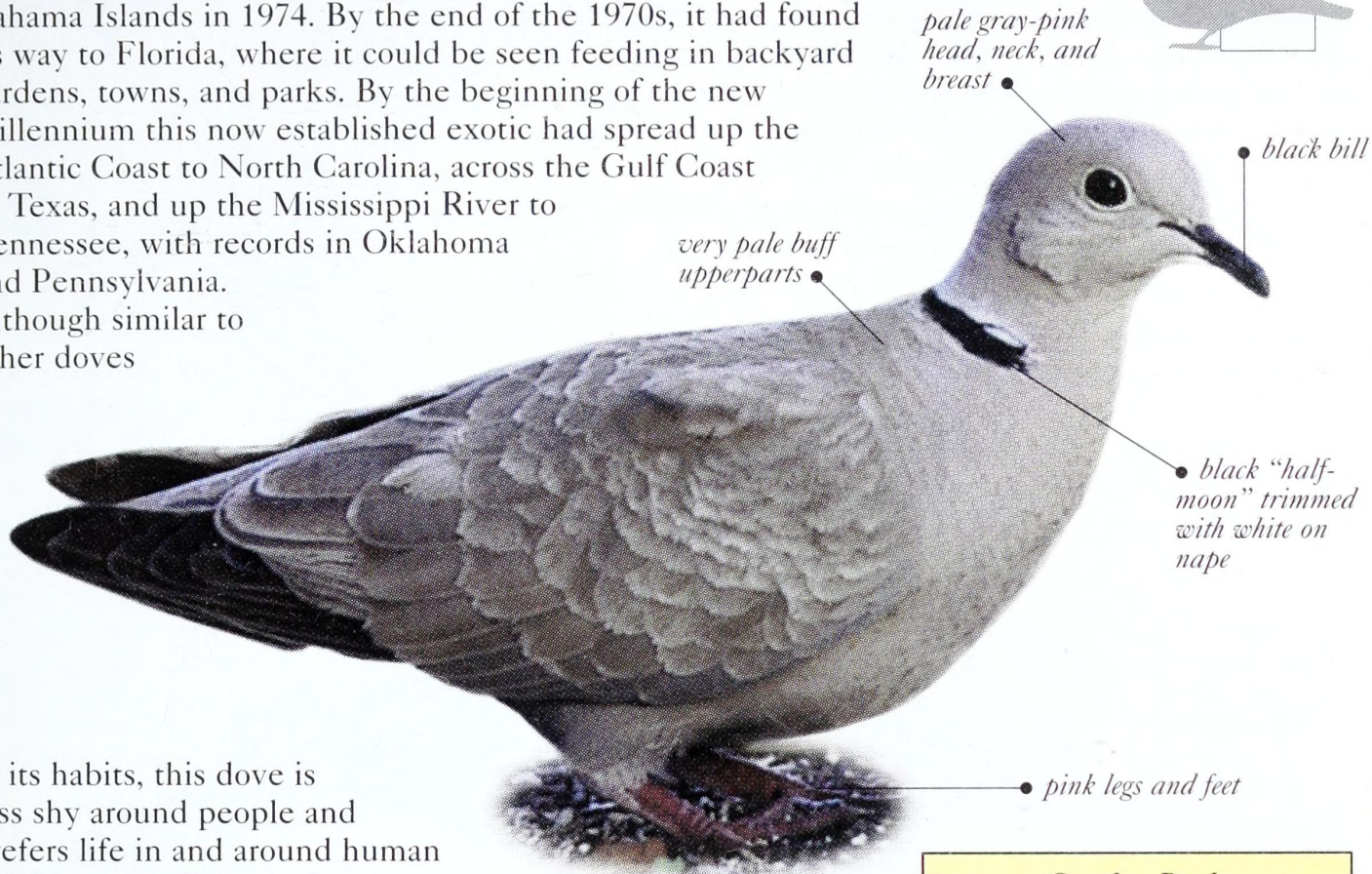
Plumage Sexes similar	Habitat	Migration Migratory	Weight 4.7 ounces
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DATE _____ TIME _____ LOCATION _____

Family COLUMBIDAE	Species <i>Streptopelia decaocto</i>	Length 12.5 inches	Wingspan 18–19 inches
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EURASIAN COLLARED-DOVE

This large dove, a native of Eurasia, was introduced into the Bahama Islands in 1974. By the end of the 1970s, it had found its way to Florida, where it could be seen feeding in backyard gardens, towns, and parks. By the beginning of the new millennium this now established exotic had spread up the Atlantic Coast to North Carolina, across the Gulf Coast to Texas, and up the Mississippi River to Tennessee, with records in Oklahoma and Pennsylvania. Although similar to other doves



in its habits, this dove is less shy around people and prefers life in and around human habitation. In flight, it shows a two-toned tail, gray base, and white-tipped blackish primaries.

- **SONG** Soft, continual cooing *hoo-hooooo-hoo* with emphasis on the second syllable; also a complaining *mair*.
- **BEHAVIOR** Solitary; pairs and family groups, but not in large flocks. Feeds close to houses; trusting of human contact. Eats mostly grain and seeds. Feeds on lawns, roadsides, feed mills, farms, and agricultural areas.
- **BREEDING** Monogamous. Male gives displays and coos while perched in tree or roof.
- **NESTING** Incubation 14–18 days by both sexes. Young stay in nest 15–20 days, fed and tended by both parents for an additional week. Up to 6 broods per year in Europe, possibly same in Florida.

Similar Birds



MOURNING DOVE
Smaller; pinkish fawn head and underparts; pinkish iridescence on neck; black spot on auriculars; brownish gray upperparts and unmarked nape; long, pointed tail with white tips and black subterminal band on all but two central feathers; black spots on upper inner wing • wings make whistling sound in flight.

Flight Pattern



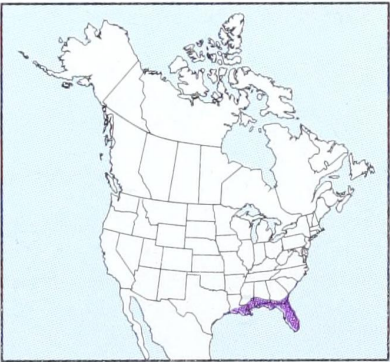
Swift strong direct flight on rapidly beating wings.

Nest Identification

Shape 

Location 

Twigs and dry stalks • in tree, shrub, and balconies or eaves of houses, 6–7 feet above ground • male collects materials, female builds • 2 pure white eggs; oval to elliptical, 1.2 inches long.



Plumage Sexes similar	Habitat 	Migration Nonmigratory	Weight 5.4 ounces
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DATE _____ TIME _____ LOCATION _____

Family COLUMBIDAE	Species <i>Zenaida asiatica</i>	Length 11–12 inches	Wingspan 17–18 inches
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WHITE-WINGED DOVE

Its distinctive white wing patches set this dove apart from other doves and pigeons; when the bird perches the patch shows only as a narrow white line outlining the bottom of the folded wing. Often making its home in the desert, it will fly more than 20 miles for drinking water, making use of both natural and man-made sources. The female is smaller than the male and duller in color.

• **SONG** A low-pitched cooing *who-cooks-for-you*; *who koo-koo-koo*.

• **BEHAVIOR** Gregarious. Sometimes seen in flocks of thousands in the West. Eats seeds, grains, and fruits from trees, shrubs, and cacti. Feeds in flocks. Obtains drinking water

rounded gray tail with white corners, black-trimmed inside

red legs and feet

brownish upperparts

iridescent greenish gold on sides of neck

reddish purple crown and nape

orange-red eyes surrounded by bare blue skin

dark blue bill

black mark below ear coverts

large white wing bars and dark gray flight feathers

from streams and cacti, as well as from various man-made sources, such as reservoirs, irrigation canals, windmill troughs, and cattle tanks.

• **BREEDING** Monogamous. Small colonies. In display flight, male climbs with clapping wing beats, then glides down on stiff, slightly downward-bowed wings.

• **NESTING** Incubation 13–14 days by both sexes. Young stay in nest 13–16 days, tended by both sexes. 2–3 broods per year.

• **POPULATION** Common in the Southwest; locally fairly common in southern Florida; Casual elsewhere.

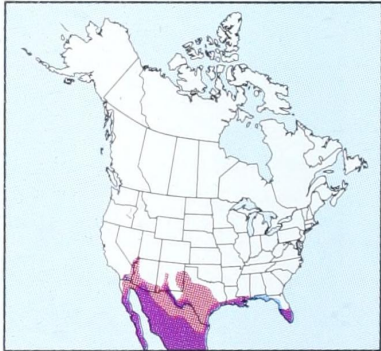
• **FEEDERS** Attracted to birdbaths, garden pools, and bird feeders and feeding stations providing small seeds.

• **CONSERVATION** Harvested and managed as a game species in the western United States.

Similar Birds



MOURNING DOVE
Lacks white wing patch; longer, more pointed tail; gray-brown flight feathers.



Flight Pattern



Fairly fast direct flight, but slower and usually higher and without the zigzagging of the Mourning Dove.

Nest Identification

Shape

Location

Sticks, grasses, and stems of weeds • cactus, shrub, or low in tree, 4–30 feet above ground • built by both sexes; male gathers material, female builds • 2 creamy buff eggs; oval to elliptical, 1.2 inches long.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 5.4 ounces
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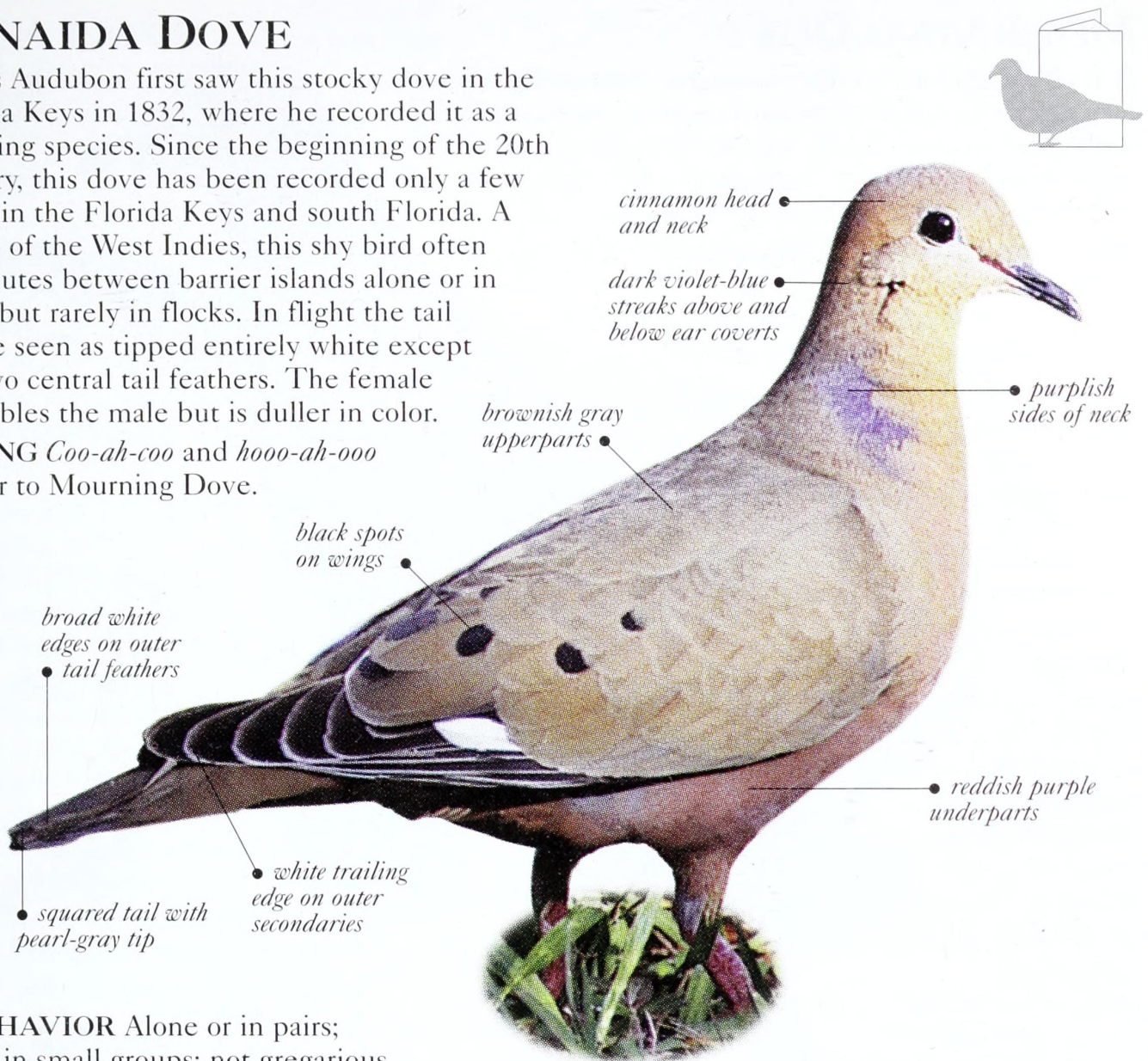
DATE _____ TIME _____ LOCATION _____

Family COLUMBIDAE	Species <i>Zenaida aurita</i>	Length 10 inches	Wingspan 15 inches
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ZENaida DOVE

James Audubon first saw this stocky dove in the Florida Keys in 1832, where he recorded it as a breeding species. Since the beginning of the 20th century, this dove has been recorded only a few times in the Florida Keys and south Florida. A native of the West Indies, this shy bird often commutes between barrier islands alone or in pairs, but rarely in flocks. In flight the tail can be seen as tipped entirely white except the two central tail feathers. The female resembles the male but is duller in color.

- **SONG** *Coo-ah-coo* and *hooo-ah-ooo* similar to Mourning Dove.



- **BEHAVIOR** Alone or in pairs; rarely in small groups; not gregarious. Feeds primarily on ground near water. Eats seeds, fruits, berries, and some insects.
- **BREEDING** Monogamous. Male displays by sitting on perch, flying straight up about 100 feet, then flying in downward circles back to perch.
- **NESTING** Incubation 12–14 days. Brooded and fed by both sexes. Fledge nest at 14–15 days. 2 or more broods per year.

- **POPULATION** Accidental on Florida Keys, mainland of southernmost Florida.
- **CONSERVATION** Some decreases due to habitat loss.

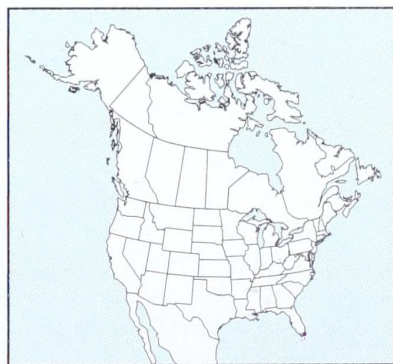
Flight Pattern	
Fast low direct flight with rapid wing beats.	
Nest Identification	
Shape	Location

Twigs and sticks • in low tree or shrub or on ground • 2 white eggs; oval to elliptical, 1.1 x 0.8 inches.

Similar Birds



MOURNING DOVE
 Lacks white trailing edge on secondaries; long, pointed tail; paler gray overall.



Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 5.6 ounces
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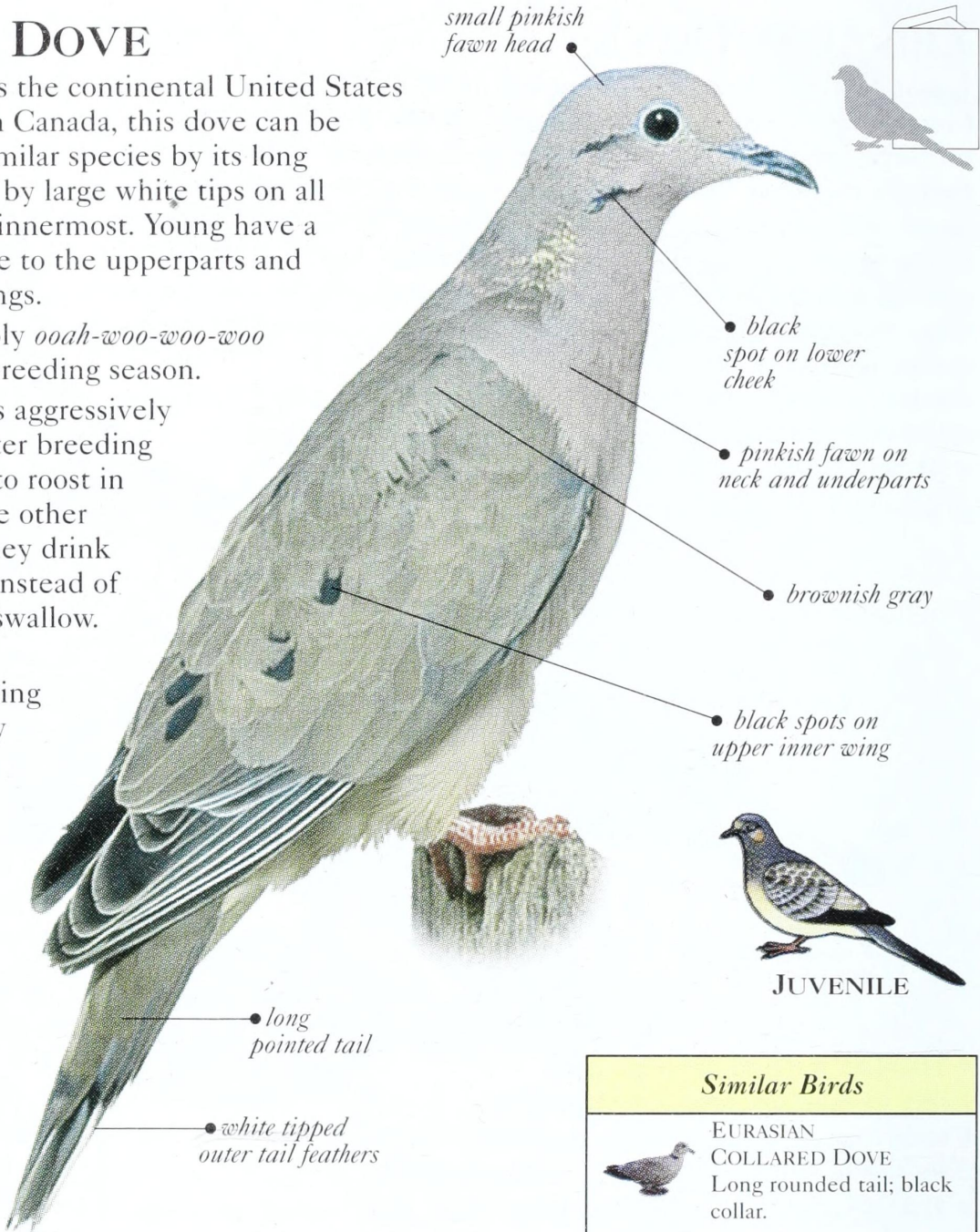
DATE _____ TIME _____ LOCATION _____

Family COLUMBIDAE	Species <i>Zenaida macroura</i>	Length 12 inches	Wingspan 17–19 inches
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MOURNING DOVE

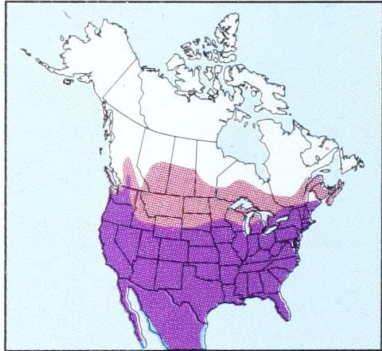
A familiar sight across the continental United States and much of southern Canada, this dove can be distinguished from similar species by its long pointed tail bordered by large white tips on all feathers but the four innermost. Young have a more scaly appearance to the upperparts and more spots on the wings.

- **SONG** A melancholy *ooah-woo-woo-woo* by male throughout breeding season.
- **BEHAVIOR** Males aggressively defend territories. After breeding season, doves gather to roost in sheltered groves. Like other pigeons and doves, they drink by sucking up water instead of lifting their heads to swallow.
- **BREEDING** Monogamous. According to some research, may pair for life.
- **NESTING** Incubation about 14 days by both sexes. Altricial young stay in nest 12–14 days, fed by both sexes. “Pigeon’s milk” is produced in the parent’s crop and regurgitated with seeds held in the same organ to feed young. 5–6 broods per year in the South; 2–3 elsewhere.
- **POPULATION** Common and increasing. Have adapted well to habitat changes by humans.
- **FEEDERS** Sunflower seeds, millet, milo, and cracked corn on the ground or in platform feeders.



Similar Birds

- EURASIAN COLLARED DOVE
Long rounded tail; black collar.
- WHITE-WINGED DOVE
Large white wing patches; square tail.



Flight Pattern

Strong swift direct flight. Often zigzags. Wings whistle during flight.

Nest Identification

Shape Location

Flimsy platform or saucer • built by female • twigs and sticks gathered by male • 6–50 feet off the ground in tree or shrub • some lay eggs in the abandoned nests of songbirds • 2 white eggs; short subelliptical to elliptical, 1.1 inches long.

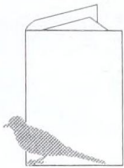
Plumage Sexes similar	Habitat	Migration Some migrate	Weight 4.3 ounces
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DATE _____ TIME _____ LOCATION _____

Family COLUMBIDAE	Species <i>Columbina inca</i>	Length 7.5–8 inches	Wingspan 12–13 inches
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INCA DOVE

During autumn large flocks of these small birds can be seen huddled together for warmth on clotheslines or fences. Choosing to make its home near human habitation, this tame dove feeds in parks, barnyards,



gardens, and birdbaths. Its feathering makes the body appear distinctively scalloped, and the rufous wings often make a twittering noise while the bird is flying. In flight its long tail is brown centrally, black laterally with white edges, and tipped white on the outer tail feathers.

- **SONG** Monotonous fluted *coe-coo* or *whoo-oo-who*, “no-hope.” Also conversational *cut-cut-ca-doo-ca-doo*.
- **BEHAVIOR** Pairs or small flocks; sometimes flocks and forages with other small doves. Huddles in tiers 2–3 high with birds standing on the back of other birds in a pyramid to keep warm on very cold days. A terrestrial species, it spends much time walking on the ground picking up seeds and grain. Sometimes feeds with chickens in barnyards. Prefers open ground near water sources.
- **BREEDING** Monogamous.
- **NESTING** Incubation 12–15 days by both sexes. Altricial young leave nest after 16 days but tended by parent for additional 7 days. Fed by both sexes. 2–5 broods per year.

Similar Birds



COMMON GROUND-DOVE
Shorter, rounded black tail with white only on corners; not as scaly; black spots and streaks on folded wing.

Flight Pattern



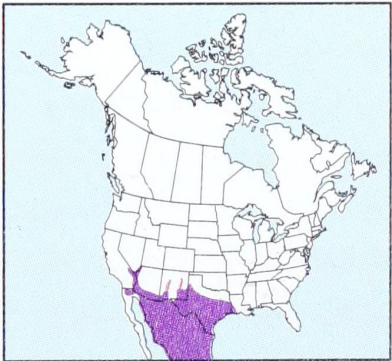
Direct flight with rapid wing beats recorded as fast as 28 miles per hour.

Nest Identification

Shape 

Location 

Made of twigs, stems, and leaves • sometimes lined with grass • built by female with material gathered by male • in tree or shrub 5–20 feet above ground • 2–7 white unmarked eggs, 0.9 inch long.



Plumage Sexes similar	Habitat 	Migration Nonmigratory	Weight 1.7 ounces
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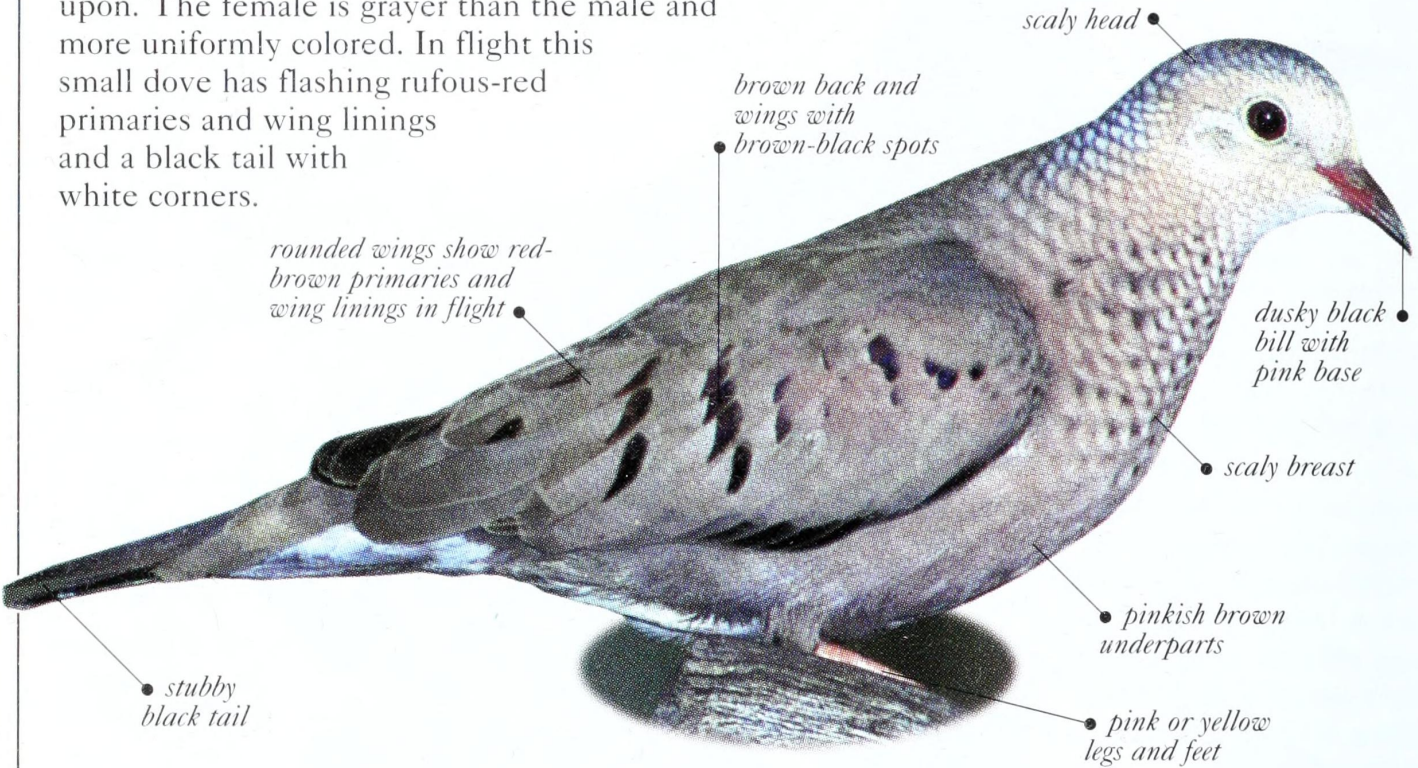
DATE _____ TIME _____ LOCATION _____

Family COLUMBIDAE	Species <i>Columbina passerina</i>	Length 6–7 inches	Wingspan 8.75–10 inches
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COMMON GROUND-DOVE

The Common Ground-Dove is about the size of a sparrow and often can be seen perched on fences, roofs of buildings, and trees. Known as tame, this bird sometimes will not fly away until almost stepped upon. The female is grayer than the male and more uniformly colored. In flight this small dove has flashing rufous-red primaries and wing linings and a black tail with white corners.



- **SONG** Continual soft melancholy *coo-oo* or *woo-oo*, rising on second syllable and often for hours at a time. Also soft *wah-up*.
- **BEHAVIOR** Terrestrial, walking on rapidly moving short legs with head bobbing. Eats seeds of grasses and weeds, waste grain in fields, insects, and small berries off ground. Often frequents quiet roadsides in early morning and late afternoon, where it may feed and pick up grit. Usually stays in pairs or small flocks.
- **BREEDING** Monogamous. Thought to mate for life.
- **NESTING** Incubation 12–14 days by both sexes. Altricial young fed by both sexes. Young leave nest as soon as they can fly, at about 11–12 days. 2–4 broods per year.

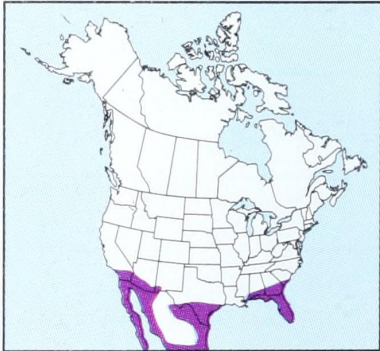
Similar Birds



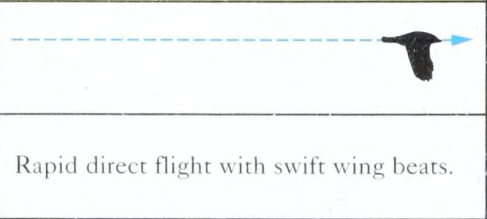
INCA DOVE
Much larger; longer white-edged tail; scaly upperparts and underparts.



RUDDY GROUND-DOVE ♂
Rufous on upperparts; lacks scaling; dark bill.



Flight Pattern



- **POPULATION** Declining in recent decades, especially in the southeastern states and along the Gulf Coast.
- **FEEDERS** Will feed on seeds scattered on ground or on platform feeders.

Nest Identification



Sometimes flimsy platform of twigs and plant fibers or slight depression on ground with little or no materials • on beach or floor of woods or fields; in low bush, stump, or vine; or on top of fence post or tree branch, 1–21 feet above ground • sometimes uses abandoned nest of songbird or other dove species • built by both sexes • 2–3 white eggs, 0.8 inch long.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 1.1 ounces
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DATE _____ TIME _____ LOCATION _____

Family COLUMBIDAE	Species <i>Columbina talpacoti</i>	Length 6–7 inches	Wingspan 9–10 inches
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RUDDY GROUND-DOVE

This gregarious dove enjoys the company of other birds. Often, as many as forty doves will gather facing the same direction and pick up seeds from the ground, moving in step with one another. Although primarily a Mexican and Central and South American native, in recent years it has strayed into Texas, Arizona, and California. In flight, note the rufous or brown upperparts, black outer tail feathers, and rusty red primaries (compare with Common Ground-Dove).

• **SONG** A *wooh* or *woop*. Sometimes, a soft *per-woop, per-woop*.

• **BEHAVIOR**

Feeds from ground, eating seeds; also takes berries. Often seen on roads, possibly gathering grit. Often in pairs or groups of 10–20. Sometimes in large flocks with other species, including Inca Dove and Common Ground-Dove. Roosts gregariously in dense foliage.

• **BREEDING** Monogamous. Colonial.

• **NESTING** Incubation 12–13 days by both sexes; female at night, male during day. Altricial young stay in nest 12–14 days, fed by both sexes. 2 or more broods per year.

• **POPULATION** Casual in the US from southern California to southeastern Texas close to Mexican border. Common throughout most of its semitropical and tropical breeding range.

• **FEEDERS** Attracted to feeding stations with small grain, especially if scattered on the ground. Also attracted to birdbaths and garden pools.

Flight Pattern



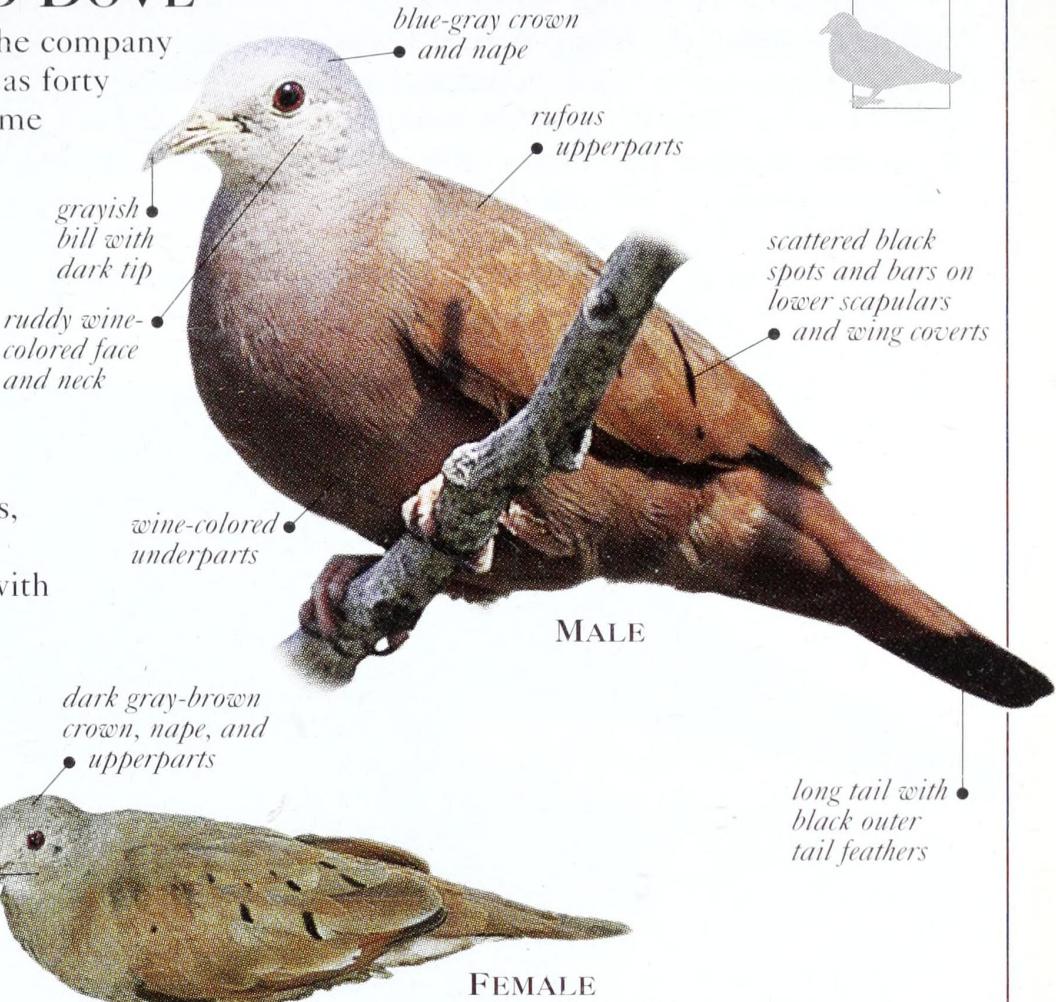
Fast low direct flight on flashing rufous-red wings.

Nest Identification

Shape 

Location 

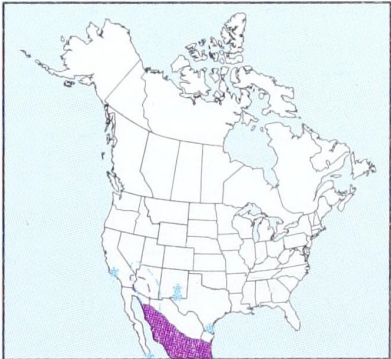
Twigs and grass • tree or bush, 3–35 feet above ground • built by both sexes • 2 white eggs; oval to elliptical, 0.9 x 0.7 inches.



Similar Birds



COMMON GROUND-DOVE
Scaled appearance on head and breast; black bill with pink base; brown upperparts; pinkish brown underparts; outermost tail feathers narrowly tipped white.



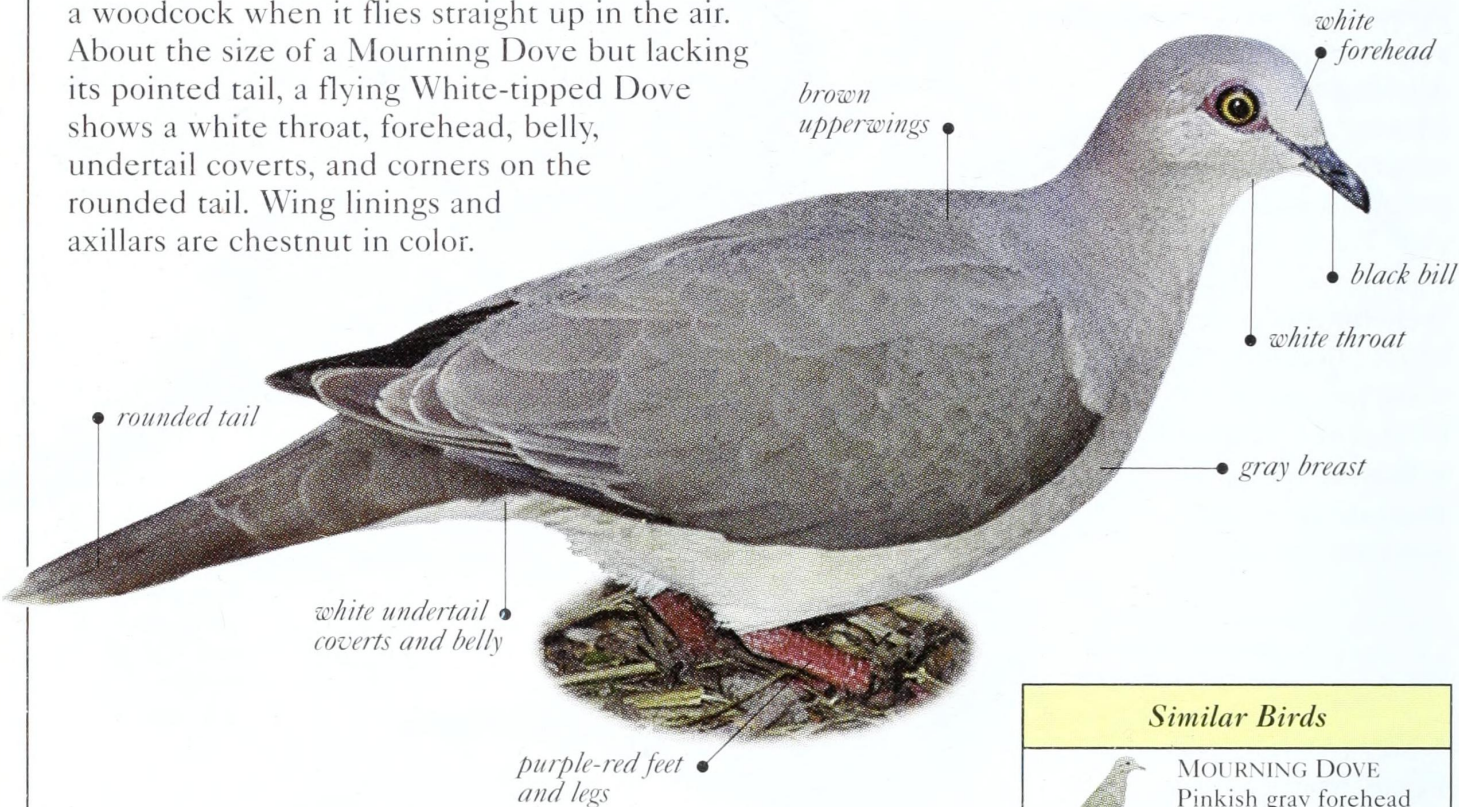
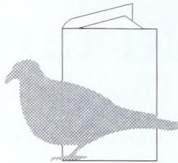
Plumage Sexes differ	Habitat 	Migration Nonmigratory	Weight 1.7 ounces
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DATE _____ TIME _____ LOCATION _____

Family COLUMBIDAE	Species <i>Leptotila verreauxi</i>	Length 11–12 inches	Wingspan 17–18 inches
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WHITE-TIPPED DOVE

Sometimes called the White-fronted Dove or Wood Pigeon, this primarily Latin American bird lives in North America in the lower Rio Grande Valley of Texas. Its wings make a whistling sound similar to the wings of a woodcock when it flies straight up in the air. About the size of a Mourning Dove but lacking its pointed tail, a flying White-tipped Dove shows a white throat, forehead, belly, undertail coverts, and corners on the rounded tail. Wing linings and axillars are chestnut in color.



- **SONG** Resembling a small deep-sounding foghorn in the thicket, oo-whooooo or hu' woo wooooo.
- **BEHAVIOR** Feeds mainly from ground. Eats fallen tree seeds, prickly pear cacti, grasses, some cultivated grains such as corn and sorghum, and large insects such as grasshoppers and crickets. Prefers to walk on the ground in dense understory. Walks quickly away from intruders unless pressed into flight on whistling wings. Solitary or in pairs; never in flocks.
- **NESTING** Incubation 14 days by both sexes. Young brooded and fed by both sexes. Young fledge nest at 14–15 days. 2 or more broods per year.

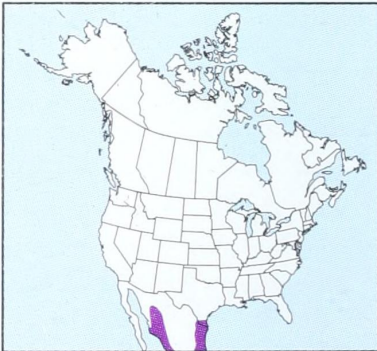
Similar Birds



MOURNING DOVE
Pinkish gray forehead and throat; gray underparts; long pointed tail with white tips on all but central tail feathers.



WHITE-WINGED DOVE
Gray tail with white-tipped feathers (except 2 sandy brown central tail feathers); white crescents across wings form white edge on folded wing.



- **POPULATION** Stable. Permanent resident of lower Rio Grande Valley of Texas.
- **FEEDERS** Comes to seeds scattered on ground or to platform feeders positioned near thick cover.

Flight Pattern

Very swift direct flight with rapid wing beats.

Nest Identification

Shape

Location

Sticks and twigs or grass, fibers, and weed stems • in low branch or fork of tree, shrub, or tangle of vines; sometimes on ground • built by both sexes • 2 cream or buff unmarked eggs; elliptical to oval, 1.2 inches long.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 5.4 ounces
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DATE _____ TIME _____ LOCATION _____

Family COLUMBIDAE

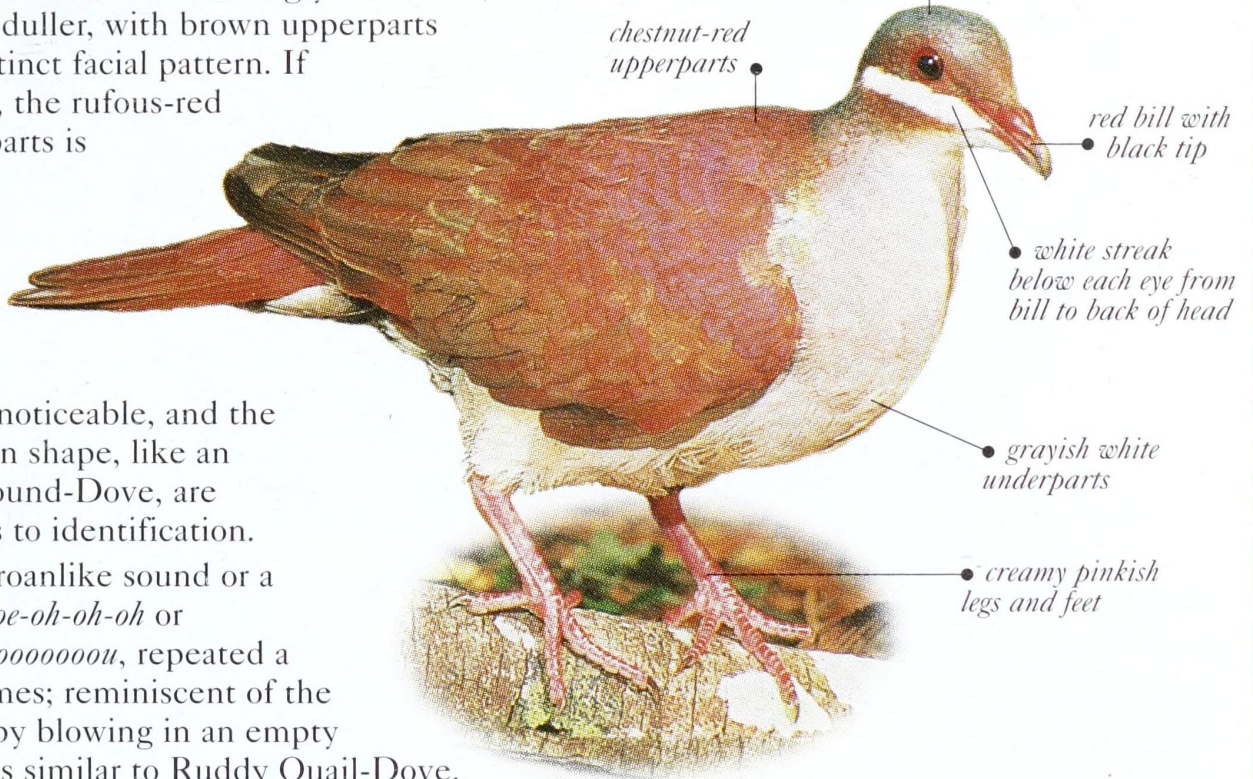
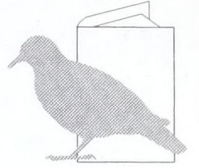
Species *Geotrygon chrysia*

Length 10–11 inches

Wingspan 15–17 inches

KEY WEST QUAIL-DOVE

James Audubon first spotted this chunky vagrant from the West Indies in the Florida Keys in 1832. Formally reported to breed in Key West and occur on the south Florida mainland, in the last half of the 20th century it has been recorded there only as a casual visitor. It lives and feeds on the ground, similar to the habits of a quail. The male bird is stunningly iridescent, but the female is duller, with brown upperparts and a less distinct facial pattern. If seen in flight, the rufous-red of the upperparts is



immediately noticeable, and the general pigeon shape, like an oversized Ground-Dove, are excellent aids to identification.

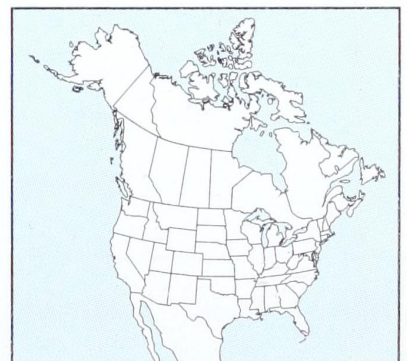
- **SONG** A groanlike sound or a loud *whoe-who-oh-oh-oh* or mournful *ooooooooou*, repeated a number of times; reminiscent of the sound made by blowing in an empty bottle. Sounds similar to Ruddy Quail-Dove.
- **BEHAVIOR** Terrestrial. Solitary or in pairs. Eats food from ground, including fallen fruit, seeds, insects, and small snails. Bathes and drinks in sheltered ponds, creeks, and other secluded bodies of water. Elusive bird that lives on the floors of impenetrable thickets and tracts of thick woody vegetation. Sometimes feeds in the open on paths or roads through tangled wall of trees providing a view. Usually walks or runs away from intruders, then flies when reaches safe distance.
- **BREEDING** Monogamous.
- **NESTING** Incubation 11–12 days by both sexes. Nestlings fed by both parents. Altricial young leave nest at 12–14 days. 1–2 broods per year.

• **POPULATION** Casual in Florida Keys and southernmost Florida. Rare to fairly common in Caribbean range. Numbers may be decreasing because of habitat loss.

Similar Birds



RUDDY QUAIL-DOVE
Smaller; rich rufous or brown upperparts without iridescence; cinnamon underparts; buffy line beneath eye; shorter tail.



Flight Pattern



Direct flight low on rapidly beating wings; often flies between islands.

Nest Identification

Shape Location

Leaves and sticks • on ground or in low tree or shrub • built by both sexes
• 1–2 buffy cream eggs; oval to elliptical, 1.2 x 0.9 inches.

Plumage Sexes similar

Habitat

Migration Nonmigratory

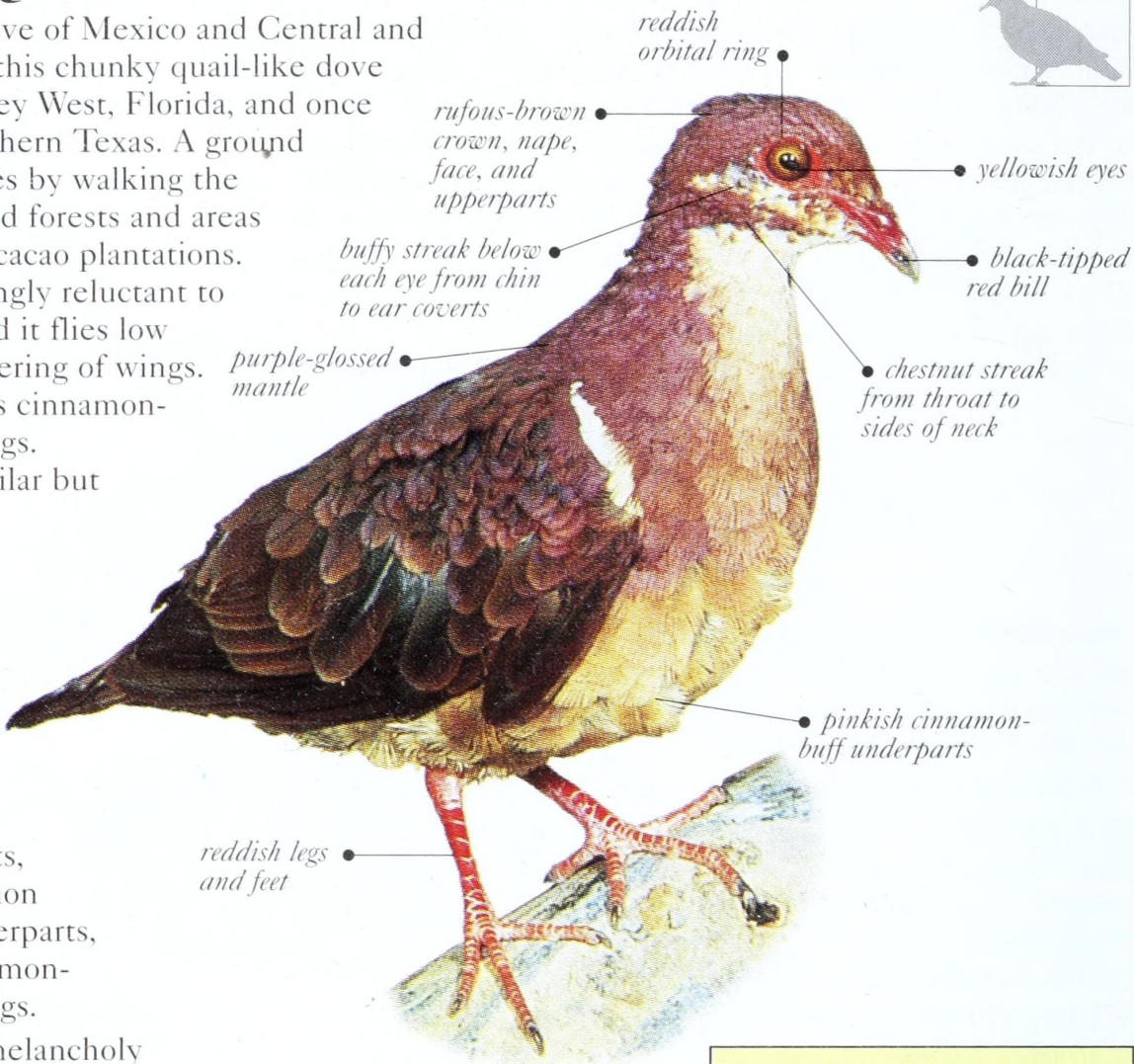
Weight 6.0 ounces

DATE _____ TIME _____ LOCATION _____

Family COLUMBIDAE	Species <i>Geotrygon montana</i>	Length 8–10 inches	Wingspan 13–15 inches
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RUDDY QUAIL-DOVE

Originally a native of Mexico and Central and South America, this chunky quail-like dove has strayed to Key West, Florida, and once was seen in southern Texas. A ground dweller, it forages by walking the grounds of humid forests and areas near coffee and cacao plantations. Although seemingly reluctant to fly, when flushed it flies low with a loud clattering of wings. In flight it shows cinnamon-rufous underwings. Females are similar but



have dark olive-brown upperparts, a grayish cinnamon breast, buff underparts, and duller cinnamon-rufous underwings.

- **SONG** Low melancholy deep booming coo note; *whooooooooo* or *ooooooooooooh* resembling the lonely sound of a foghorn.
- **BEHAVIOR** Highly terrestrial; usually runs from danger. Most active in early morning and late afternoon. Bill is angled downward; forages on ground for fallen fruit, seeds, and small snails. Bathes and drinks in secluded, shaded pools. Often seen as individuals or in pairs but fairly difficult to observe.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation is an unusually short 10–11 days.

Altricial young leave nest after 10 days. 1–2 broods per year.

- **POPULATION** This quail-like dove is a rare vagrant to the southern US. It is fairly common in tropics south of the US borders.

Flight Pattern



Swift direct flight on rapidly beating wings.

Nest Identification

Shape 

Location   

Loose collection of leaves on ground, tree stump, or slight platform of sticks in low tree branch, up to 8 feet • 2 buff eggs; oval to elliptical, 1.1 x 0.85 inches.

Similar Birds



KEY WEST QUAIL-DOVE
Larger; proportionally longer tail; white chin and throat; whitish underparts; chestnut upperparts glossed with greens and purples, iridescent in males.



Plumage Sexes similar	Habitat 	Migration Nonmigratory	Weight 4.1 ounces
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DATE _____ TIME _____ LOCATION _____

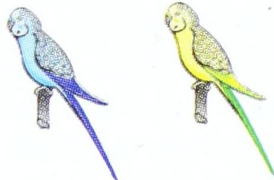
Family PSITTACIDAE	Species <i>Melopsittacus undulatus</i>	Length 6–7 inches	Wingspan 10 inches
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BUDGERIGAR

Originally from Australia, the Budgerigar is perhaps the best-known parrot in the world. The name originates from the native Australian word *betcherrygah*, which means “good parrot.” It has gained popularity as a caged bird in the United States and many other parts of the world. A breeding population of escaped and released birds exists in Florida. Wild-type birds have a yellow face and upperparts, barring and scalloping on the back, and greenish underparts. Its overall color can be blue, yellow, or white due to breeding of captive birds for plumage. In flight look for the long, pointed tail and yellow wing stripe. Juveniles are similar to adults but have less-distinct spotting on the throat. Breeding females are similar to males but have a brown cere.

- **SONG** Garrulous. Musical, mellow *chirrup* is continuous when flocks gather. Also gives sharp, rasping scolds. When alarmed makes *zizzing* chatter.
- **BEHAVIOR** Gregarious. Eats mainly small seeds, especially of grass and weed, and some plant materials such as new leaves, buds, and blossoms. Walks on ground searching for food. Often gathers in flocks in early morning and late afternoon to drink at waterholes, ponds, streams, garden pools, etc. Prefers suburbs with adjacent open, grassy areas.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 18 days by female. Male feeds female in nest hole. Altricial young stay in nest 30–36 days. Fed by both sexes. 1–2 broods per year.
- **POPULATION** Exotic. Introduced in southwestern Florida in 1960s; established populations of thousands by 1980s. Serious decline since then; may be due to competition for nesting cavities. Accidental anywhere as escapees from captivity.

- **BIRDHOUSES** Will nest in man-made nest boxes.
- **CONSERVATION** Introduced by accidental escape or release of caged birds.



COLOR VARIATIONS

Flight Pattern

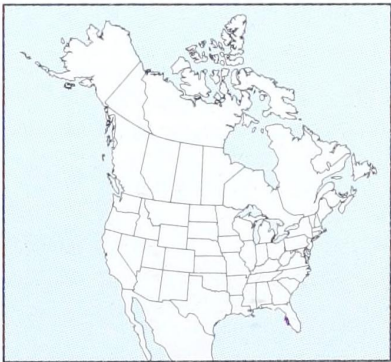
Swift direct and slightly undulating flight with rapid wing beats.

Nest Identification

Shape

Location

No nest materials • in tree cavity or nest box • 4–8 white eggs; round, 0.75 inches long.



Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 1.0 ounce
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DATE

TIME

LOCATION

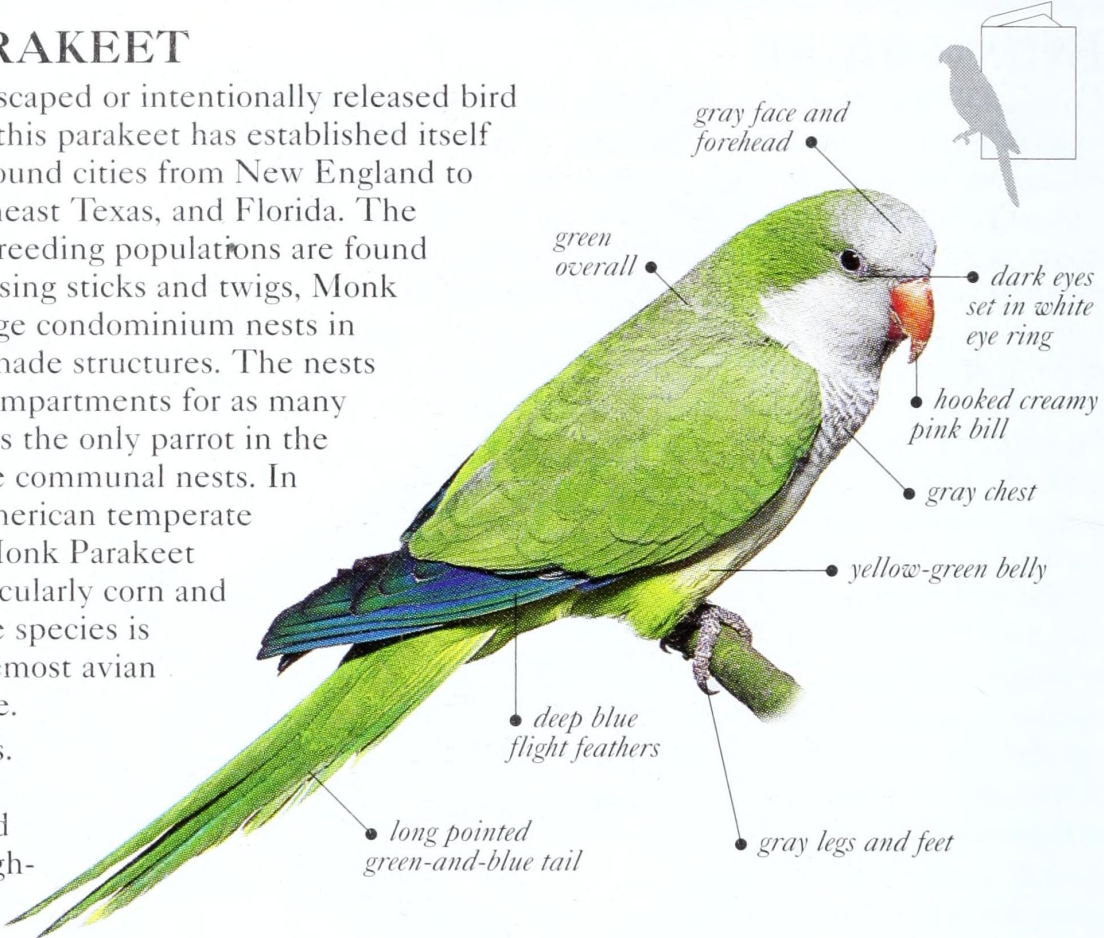
Family PSITTACIDAE	Species <i>Myiopsitta monachus</i>	Length 11.5 inches	Wingspan 17–18 inches
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MONK PARAKEET

Introduced as an escaped or intentionally released bird in North America, this parakeet has established itself primarily in and around cities from New England to the Midwest, southeast Texas, and Florida. The most widespread breeding populations are found in south Florida. Using sticks and twigs, Monk Parakeets build large condominium nests in trees and on man-made structures. The nests contain separate compartments for as many as twenty pairs. It is the only parrot in the world to build large communal nests. In its native South American temperate habitat, flocks of Monk Parakeet destroy crops, particularly corn and sunflowers, and the species is considered the foremost avian threat to agriculture.

- **SONG** Garrulous. Wide range of high staccato shrieks and screams. Makes high-pitched chattering when feeding.
- **BEHAVIOR** Gregarious. Searches for food in flocks, often tearing apart crops. Eats legumes, grains, seeds, fruits, and insects. Frequents areas near human habitation. Builds large conspicuous domed nests of sticks with entrance on side. Pairs roost throughout the year in their chambers within.
- **BREEDING** Monogamous. Loosely colonial, often communal in a single large multichambered nest.
- **NESTING** Incubation 25–31 days by both sexes. Fed by both sexes. Altricial young stay in nest 38–42 days. 2 broods per year.
- **POPULATION** Exotic. Very popular and common caged bird. Found in Florida, Texas, southeastern cities, the Northeast, and the Midwest.
- **FEEDERS** Groups attend feeders, especially in the winter, and eat seeds, cracked corn, pine seeds, suet, acorns, grass seeds, apples, cherries, grapes, raisins, and currants.

• **CONSERVATION** Attempts to control and/or eliminate this exotic species in many areas of the US are destroying both birds and nests.

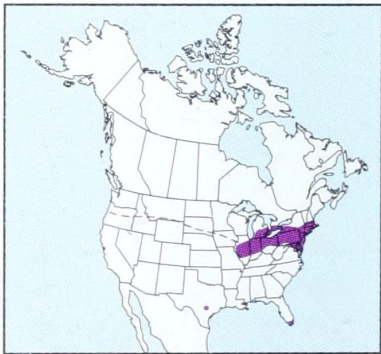


Similar Birds

None over most of North America.



WHITE-WINGED PARAKEET
In south Florida only
• also similar to Yellow-chevroned Parakeet
• smaller; yellow-green overall; yellow edge on folded wing shows as yellow patch at bend of wing in flight; dark green flight feathers; lacks gray on face, crown, and breast.



Flight Pattern

Swift direct flight with rapid wing beats, often in flocks. Sometimes slight undulating flight.

Nest Identification

Shape Location

Sticks and twigs • in highest branches of tree or leaning against tree or any tall structure • built by both sexes, often with other birds in colony • 5–9 white eggs; short subelliptical ovate, 1.1 x 0.8 inches.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight Undetermined
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DATE _____ TIME _____ LOCATION _____

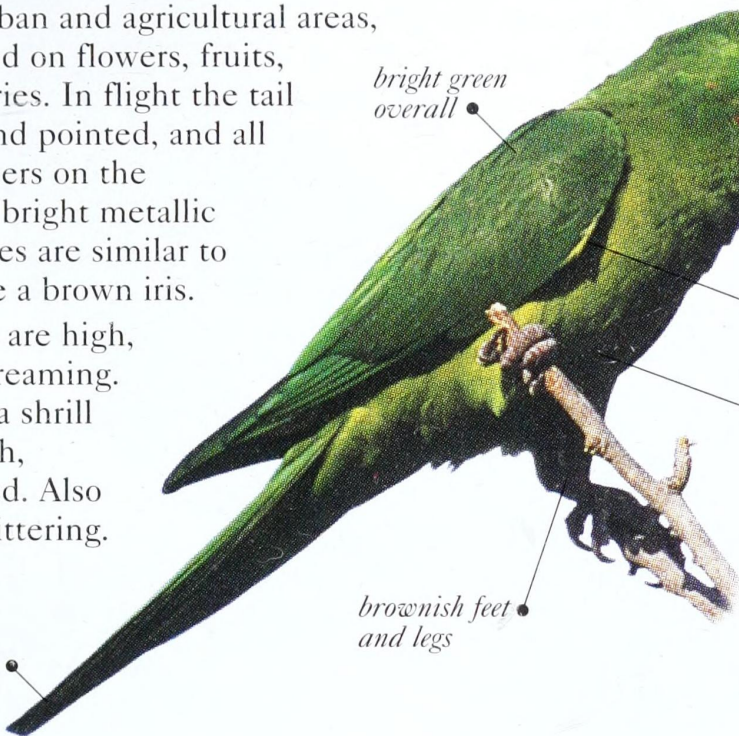
Family PSITTACIDAE	Species <i>Aratinga holochlora</i>	Length 12–13 inches	Wingspan 17–19 inches
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GREEN PARAKEET

This parakeet is a tropical bird, but vagrants may find their way to the southern tip of Texas and join the flocks that have become established there. In its native habitat of Mexico, it frequents deciduous forests and plantations, but these birds are most often spotted in Texas in urban or suburban and agricultural areas, where they feed on flowers, fruits, seeds, and berries. In flight the tail appears long and pointed, and all the flight feathers on the underwing are bright metallic yellow. Juveniles are similar to adults but have a brown iris.

• **SONG** Calls are high, grating, and screaming. In flight gives a shrill metallic screech, rapidly repeated. Also gives much twittering.

long pointed tail with yellowish undertail feathers



- **BEHAVIOR** In noisy flocks, except during nesting season when in pairs. Size of flocks may depend on food supply. Eats seeds, fruits, nuts, berries, blossoms, and buds taken from canopy or outer branches of shrubs. Raids corn crops. Sometimes uses feet to bring food to mouth. Uses bill and feet to climb among branches and foliage.
- **BREEDING** Monogamous. Solitary. Often semicolonial.
- **NESTING** Breeding biology poorly known. Estimated incubation 23–28 days by female; male roosts in nesting cavity with female at night but not known to incubate. Young altricial; brooded by female; stay in nest estimated 42–56 days, fed by both sexes. 1 brood per year.

Flight Pattern

Very swift direct flight on rapidly beating wings, often high above the terrain.

Nest Identification

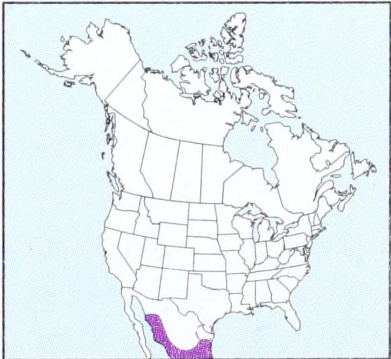
Shape Location

- **POPULATION** Casual in North America. Fairly common to common in the lower Rio Grande Valley of Texas.
- **FEEDERS** Seeds and fruits.
- **CONSERVATION** Captured as cage bird in native Mexico and northern Central America.

Adds only a few twigs • in natural tree hollow or abandoned hole or sometimes in rock crevices • in native range, pairs sometimes excavate arboreal termite nests • 2–5 white eggs; nearly spherical, 1.17 x 0.97 inches.

Similar Birds

RED-CROWNED PARROT
Stocky; green overall; short fan-shaped tail with yellow terminal band; green wings with dark blue-tipped primaries and secondaries; red patch in secondaries; pale blue mottling on crown and nape; red forehead and crown (more extensive in male); gray feet and legs; tan to creamy pink bill • not that similar since body shape differs, but the only other established green parrot in range in southern Texas.



Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight Undetermined
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DATE _____ TIME _____ LOCATION _____

Family PSITTACIDAE	Species <i>Brotogeris versicolurus</i>	Length 8–9 inches	Wingspan 13–14 inches
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WHITE-WINGED PARAKEET

Sometimes called the Canary-winged Parakeet, this South American native makes its home in the forest, including parklands. The only noted established populations from released or escaped birds in North America peaked in Miami and in California in the mid-20th century; they have since declined. In flight, note the long pointed green tail, the colorful wing pattern of a green wedge in the forewing, yellow greater secondary and primary coverts, white secondaries and inner primaries, and blue-green outer primaries. This bird is also easy to identify in flight from below by its translucent white flight feathers.

• **SONG** Garrulous. While flying or perched gives a rapid repetition of shrieking metallic notes. When feeding has various chatters, chirps, and low muttering calls.

• **BEHAVIOR** Gregarious; occurs in flocks of 8–10 birds, sometimes up to 50. Flocks break up into pairs during breeding season. Eats seeds, berries, fruit, blossoms, and buds of fruit and other trees. Presence difficult to overlook because of its noisy vocalizations but difficult to see when perched because the dark green plumage blends well with the foliage. Frequents areas around human habitation in urban and suburban areas with tropical and subtropical ornamental plantings.

• **BREEDING** Monogamous. Solitary.

• **NESTING** Incubation 26 days by female. Altricial young stay in nest 56 days, fed by both sexes. 1 brood per year.

• **POPULATION** Exotic. Introduced into southern California and southern Florida, where they are now established, but declining from peaks in the 1970s and 1980s. Being replaced by Yellow-chevrons Parakeet, also introduced, which now outnumbers the White-winged Parakeet.

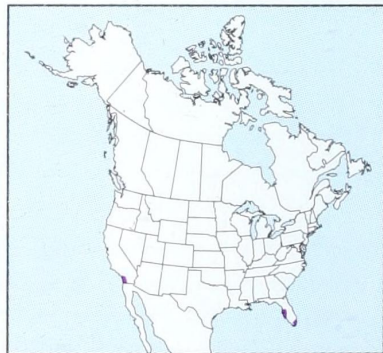
• **FEEDERS** Attends feeders providing seeds and/or fruits. Comes to birdbaths, pools, and ponds to drink.

• **CONSERVATION** No efforts in US because it is not a native species.

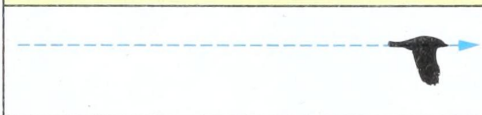


Similar Birds

An introduced species in south Florida, the Yellow-chevrons Parakeet is growing in number; it differs only in that it lacks white patches in the wing.



Flight Pattern



Swift direct flight on rapidly beating wings.

Nest Identification

Shape

Location

No nesting materials • in tree • 5 dull white or pure white eggs; slightly ovate, 0.9 x 0.7 inches.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 1.9 ounces
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Family PSITTACIDAE

Species *Amazona viridigenalis*

Length 12–13 inches

Wingspan 19 inches

RED-CROWNED PARROT

Small groups of these birds, which are most likely descended from escaped caged birds, have established themselves in Texas, California, and Florida. In its native habitats in northeastern Mexico, it spends its time in the pine-oak ridges and tropical forests of canyons, often traveling in conspicuous highly vocal flocks between the treetops. In flight, note the stocky appearance, dark blue-tipped flight feathers, red patch in secondaries, and yellowish-tipped tail. The male has an entirely red crown, while the female and juvenile have only a red forehead.

• **SONG** Noisy. Has a squawking harsh *kee-crah-crah-crah* and a smooth *rreeoo* or *heeeyo*.

• **BEHAVIOR** Gregarious. Usually in flocks of 10–20 or more, except during breeding season when it occurs in pairs. Feeds on a variety of fruit, seeds (including pine seeds), nuts, berries, buds, and flowers. Can be agricultural pests locally. Often wasteful, eating only a bite or two, then dropping food to take another. Holds food in feet and manipulates it to the beak.

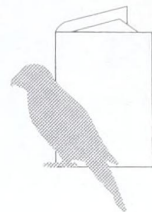
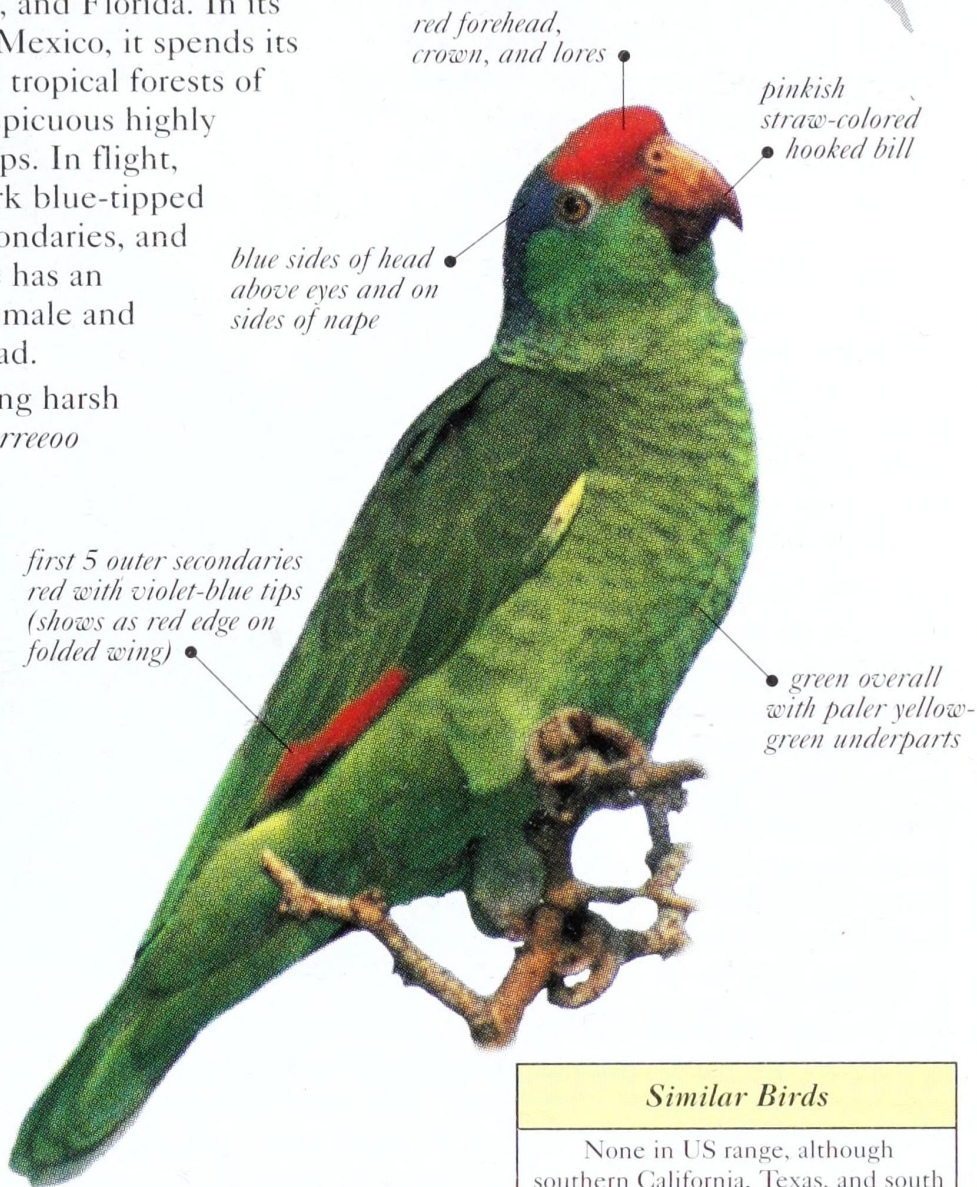
• **BREEDING** Monogamous. Solitary. Courting males often offer tidbits to their mates.

• **NESTING** Incubation 25–31 days by female. Duration of nest and age at fledging undetermined. Altricial young fed by both sexes. 1 brood per year.

• **POPULATION** Exotic; escaped or released birds established in southern Texas, southern California, and southern Florida. Some Texas birds may be wild birds from Mexico.

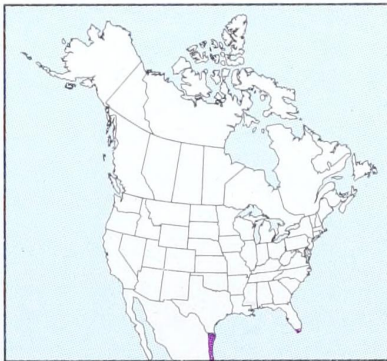
• **CONSERVATION** Populations declining in native areas, probably threatened by habitat destruction and capture for cage trade.

first 5 outer secondaries red with violet-blue tips (shows as red edge on folded wing)

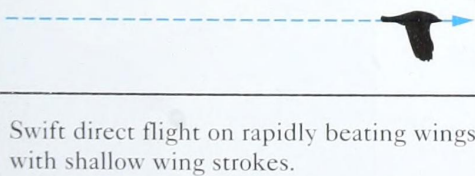


Similar Birds

None in US range, although southern California, Texas, and south Florida have many large green parrots flying about its cities and suburban areas, where this species should be identified with care.



Flight Pattern



Nest Identification

Shape  Location   

No materials used • nest in preformed cavity • 2–5 white eggs; elliptical, 1.4 x 1.1 inches.

Plumage Sexes similar

Habitat   

Migration Nonmigratory

Weight 10.4 ounces

Family CUCULIDAE	Species <i>Coccyzus erythrophthalmus</i>	Length 11–12 inches	Wingspan 15–17 inches
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BLACK-BILLED CUCKOO

This shy bird spends most of its time skulking in deep wooded forests. In rare instances, instead of incubating its own eggs it will lay its eggs in the nests of Yellow-billed Cuckoos, Gray Catbirds, Wood Thrushes, Yellow Warblers, or Chipping Sparrows. In flight note the long tail, which has small crescent-shaped white spots on the tips of all but the two central tail feathers, and the uniformly grayish brown wings and back. Juveniles are similar to adults but have a buff eye ring, paler undertail, and buff wash on the underparts, especially the undertail coverts.

- **SONG** Generally silent. Repeated monotone *cu-cu-cu* or *cu-cu-cu-cu* in series of 3–4 notes. Also gives series of rapid *kowk-kowk-kowk* notes all on a single pitch. Sometimes sings at night.

• **BEHAVIOR**

Skulks through thick vegetation in shrubs and trees. Often sits quietly on branch scanning in all directions before changing perches. Eats primarily caterpillars, especially hairy tent caterpillars, and other insects; occasionally eats small mollusks, fish, and some wild fruits. Often found in damp thickets and wet places. Engages in courtship feeding.

- **BREEDING** Monogamous.

- **NESTING** Incubation 10–14 days by both sexes. Altricial young stay in nest 7–9 days; fed by both sexes. Young leave nest before they can fly and climb around on nest tree or shrub for about 14 days. 1 brood per year.

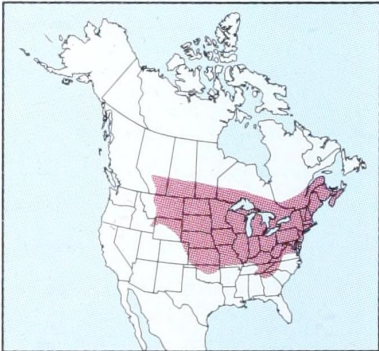
- **POPULATION** Uncommon to fairly common. Somewhat dependant on caterpillar populations; larger clutches laid when food is plentiful.



Similar Birds



YELLOW-BILLED CUCKOO
Yellow bill with dark tip; rufous primaries contrast with wing coverts and upperparts; larger white spots on undertail.



Flight Pattern

Often flies low and makes short flights from one tree to the next.

Nest Identification

Shape Location

Dried twigs • lined with fresh grass, leaves, pine needles, catkins, and vegetation • in tree or shrub 2–20 feet above ground • 2–5 blue-green eggs with dark blotches, 1.1 x 0.8 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 3.6 ounces
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DATE _____ TIME _____ LOCATION _____

Family CUCULIDAE	Species <i>Coccyzus americanus</i>	Length 11–13 inches	Wingspan 15–17 inches
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YELLOW-BILLED CUCKOO

Like most of the cuckoos, this bird prefers to perch unobtrusively in thick forests or shrubs. Many rural people know this bird as the “Rain Crow.” Sometimes it lays its eggs in nests of the Black-billed Cuckoo but rarely in nests of other birds. It is often a casualty at “tower kills” while migrating at night. In flight, note the long tail and the contrast of rufous primaries against gray-brown wing coverts and upperparts. The juvenile shows a paler undertail pattern, and the lower mandible may not be yellow.

- **SONG** Often silent; song heard more often in summer. A monotonous throaty *ka-ka-ka-ka-kow-kow-kow-kow-kowlp—kowlp—kowl*, pruning down and slowing at the end.
- **BEHAVIOR** Slips quietly and somewhat stealthily through tangles; flies easily from tree to tree. Often sits motionless on an interior branch and slowly surveys the surrounding vegetation. Eats mostly hairy caterpillars; also insects, larvae, and small fruits and berries. Sometimes eats small frogs and lizards and the eggs of other birds. Engages in courtship feeding in which the male lands by perched female, climbs on her shoulder, and places food in her bill.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 9–11 days by both sexes. Altricial young stay in nest 7–9 days, fed by both sexes. Young leave nest before able to fly but remain in vicinity, climbing in branches; fed by parent for about 14 more days. 1 brood per year.
- **POPULATION** Uncommon to common. Somewhat dependent

on caterpillar population; species produces greater number of eggs when plentiful.

- **CONSERVATION** Neotropical migrant that has declined significantly over much of its range.

Flight Pattern

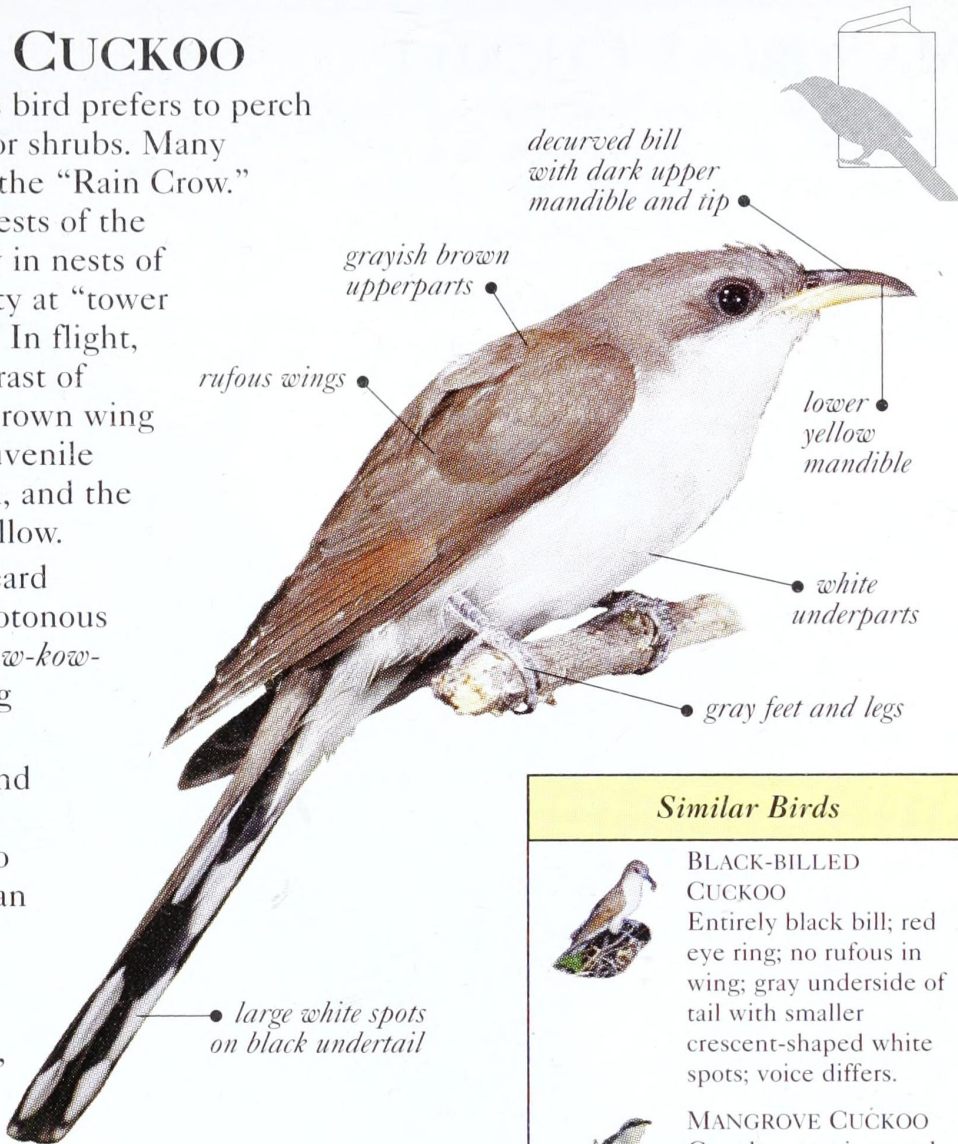


Direct flight with slow light steady wing beats; often flies low from tree to tree with flash of rufous in wings.

Nest Identification

Shape  Location 

Small sticks, with lining of leaves, grasses, mosses, bits of fabric, and catkins from oaks and willow trees • so flimsy eggs can sometimes be seen from beneath • in tree or shrub, 2–12 feet above ground • built by both sexes • 1–5 pale bluish green eggs that fade to light greenish yellow, unmarked; elliptical to cylindrical, 1.2 x 0.9 inches.



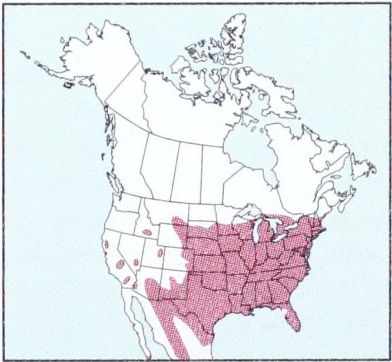
Similar Birds



BLACK-BILLED CUCKOO
Entirely black bill; red eye ring; no rufous in wing; gray underside of tail with smaller crescent-shaped white spots; voice differs.



MANGROVE CUCKOO
Gray-brown wings and coverts; black mask extends past eye; tawny-buff lower breast, sides, belly, flanks, and undertail coverts; decurved black bill, yellow at base of lower mandible • limited range in Florida; accidental on Gulf Coast.



Plumage Sexes similar	Habitat 	Migration Migratory	Weight 3.6 ounces
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DATE _____ TIME _____ LOCATION _____

Family CUCULIDAE	Species <i>Coccyzus minor</i>	Length 12.5 inches	Wingspan 16 inches
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MANGROVE CUCKOO

A shy resident of the West Indies, this bird also inhabits the black and red mangroves of the central and southern Gulf Coast, southern Florida Gulf Coast, Biscayne Bay, and the Florida Keys. Birdwatchers may spot this timid bird as it flies quickly from tree to tree, but most often it prefers to hide in thick vegetation. Like other cuckoos it is heard more often than seen. Note the combination of black ear patch, buff underparts, lack of rufous in the wing, and long tail with large white spots underneath.

- **SONG** Often silent. Most common call is thick throaty squirrel-like *gah-gah-gah* or *qua-qua-qua* given in steady series of 8–20 or more notes.
- **BEHAVIOR** Solitary.

Often sits motionless and stays hidden in deep vegetation. Eats spiders, insects, fruit, wild berries, small frogs, lizards, and caterpillars.

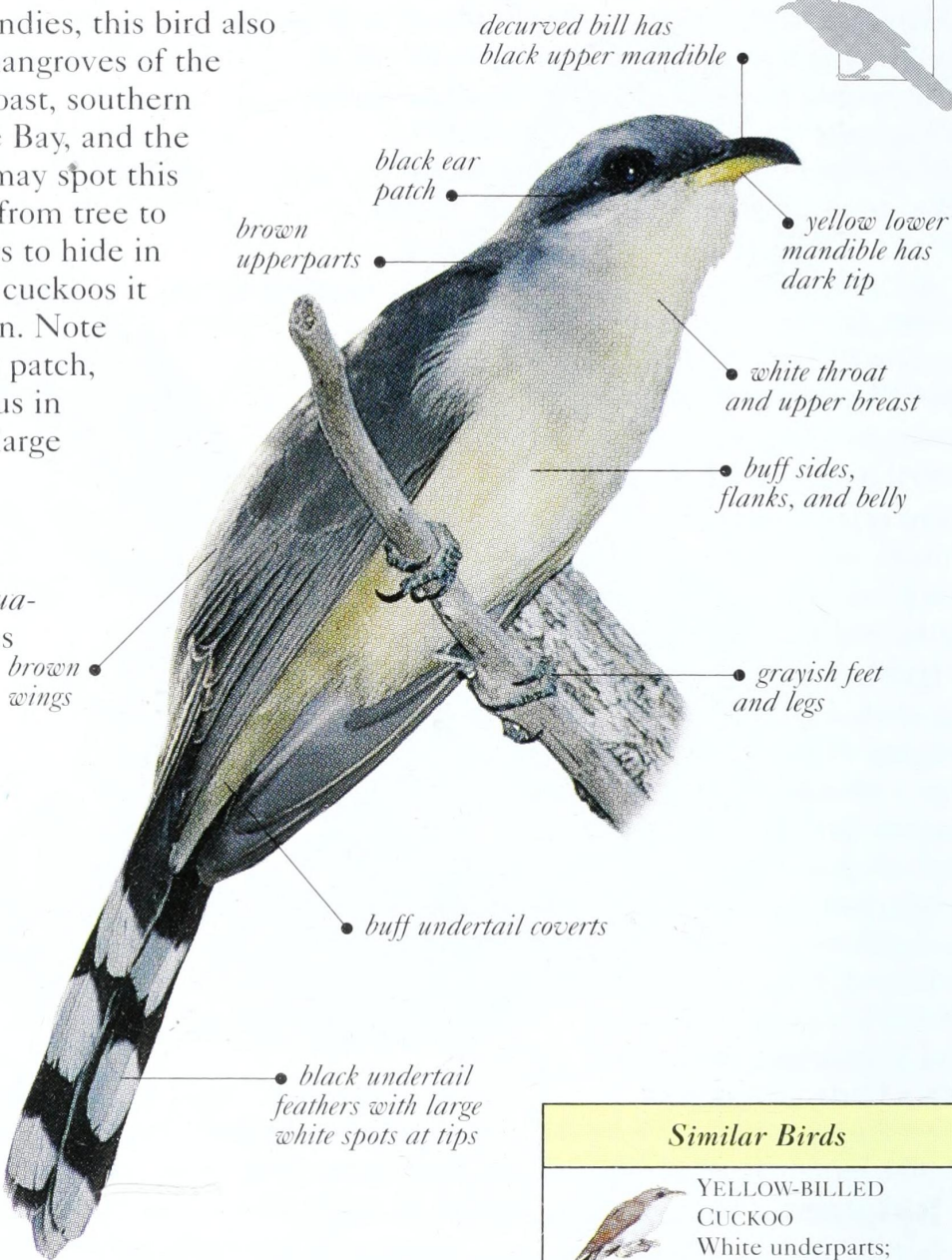
• **BREEDING**

Monogamous. Solitary nester or small, loose colonies.

- **NESTING** Incubation 9–11 days by both sexes. Young stay in nest 7–9 days. Fed by both sexes. Young, which leave nest before flight capable, skillfully climb about near nest; continue to be fed by parents for 10–12 days. 1–2 broods per year.

- **POPULATION** Rare to uncommon in Florida, where it may be slowly expanding range. Declining in Florida Keys.

- **CONSERVATION** Decline in Florida Keys may be caused by development in mangrove swamps and subtropical hardwood forests, resulting in habitat loss and fragmentation.



Similar Birds



YELLOW-BILLED CUCKOO
White underparts; rufous in wing on primaries and primary coverts; lacks black ear patch.



Flight Pattern	
Rapid direct flight with quick wing beats. Flies low across roads and from tree to tree.	
Nest Identification	
Shape	Location

Flimsy structure made with a few twigs and leaves • in mangrove tree or shrub 8–10 feet above water level • built by both sexes • 2–3 light bluish eggs; elliptical to cylindrical, 1.2 x 0.9 inches.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 3.6 ounces
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DATE _____ TIME _____ LOCATION _____

Family CUCULIDAE	Species <i>Geococcyx californianus</i>	Length 20–24 inches	Wingspan 32 inches
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GREATER ROADRUNNER

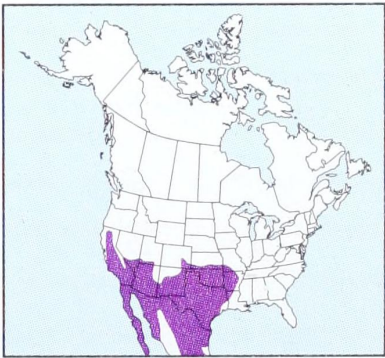
Able to run up to 15 miles per hour, this bird generally seems to prefer sprinting rather than flying. Because this large slender member of the cuckoo family habitually stays on the ground, it can be difficult to see. Centuries ago, it was sometimes called the Ground Cuckoo because it would run along paths in front of horse-drawn carriages. This shy solitary bird is the state bird of New Mexico. Look for the large streaked body, shaggy crest, and long tail that shows white tips when it is spread. In flight, the short, rounded wings reveal a white crescent in the primaries. Sometimes visible is a patch of bare skin around and behind the eye that shades from blue proximally to red to orange distally.

- **SONG** A series of throaty descending dovelike *coooos*. Also a low, rolling *preet-preet*.
- **BEHAVIOR** Terrestrial. Often solitary. Eats insects, snakes, lizards, rodents, and small birds; some fruits and seeds. Runs on ground in pursuit of prey. Seldom flies. Pairs hold territory all year. Performs distraction display to lure intruders from nest.
- **BREEDING** Monogamous. Solitary. May mate for life. Has unusual courtship display: male bows, alternately lifting and dropping its wings, while spreading its tail; parades in front of female with head held high on ridged neck and with tail and wings drooped.
- **NESTING** Incubation about 20 days by both sexes, but male does more. Young stay in nest 17–18 days, fed by both sexes. 1–2 broods per year.

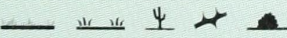


Flight Pattern	
	
When flushed or crossing obstacles, alternates several shallow rapid wing beats with long glides.	
Nest Identification	
Shape 	Location 

- **POPULATION** Fairly common to common. Local populations tend to decline after a severe winter.
- **CONSERVATION** Often persecuted based on belief that they make serious inroads on quail populations.



Twigs, with lining of grass, mesquite pods, leaves, feathers, snakeskin, and horse or cattle droppings • in shrub, tree, or cactus, 2–12 feet above ground • 2 white to pale yellow eggs; elliptical to cylindrical, 1.5 inches long.

Plumage Sexes similar	Habitat 	Migration Nonmigratory	Weight 13.2 ounces
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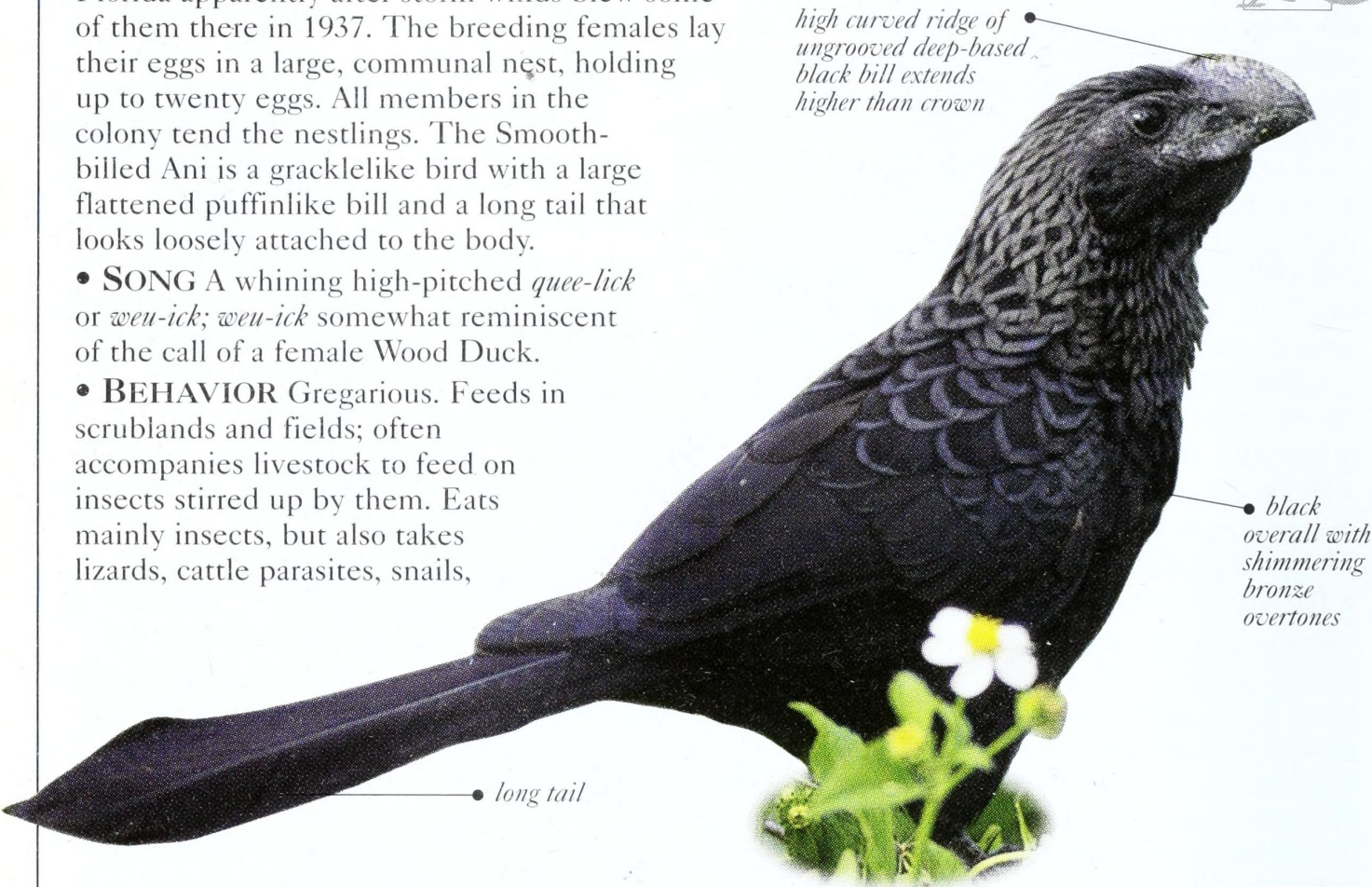
DATE _____ TIME _____ LOCATION _____

Family CUCULIDAE	Species <i>Crotophaga ani</i>	Length 12–14.5 inches	Wingspan 17–18 inches
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SMOOTH-BILLED ANI

These West Indian natives are now established in Florida apparently after storm winds blew some of them there in 1937. The breeding females lay their eggs in a large, communal nest, holding up to twenty eggs. All members in the colony tend the nestlings. The Smooth-billed Ani is a gracklelike bird with a large flattened puffinlike bill and a long tail that looks loosely attached to the body.

- **SONG** A whining high-pitched *quee-lick* or *wuu-ick*; *wuu-ick* somewhat reminiscent of the call of a female Wood Duck.
- **BEHAVIOR** Gregarious. Feeds in scrublands and fields; often accompanies livestock to feed on insects stirred up by them. Eats mainly insects, but also takes lizards, cattle parasites, snails,



seeds, fruit, and berries. Often spreads wings and tail to bask in morning sun. Individuals in the communal group sit side by side on perch and mutually groom each other. Tail often dipped and wagged side to side.

- **BREEDING** Communal; cooperative. Each breeding female contributes 2–4 (sometimes 6) eggs to clutch.
- **NESTING** Incubation 14 days by both sexes and extra birds. Altricial young are fed by all adults in group. Fledge the nest in 7–10 days after hatching. 1–2 broods per year.
- **POPULATION** Uncommon and local. Declining in Florida since the 1970s, but increasing in the tropics. Rare to accidental outside southern Florida.

Flight Pattern

Slow weak flight, alternating a series of rapid shallow stiff wing beats with short glides. Often flies low to the ground from one patch of vegetation to the next.

Nest Identification

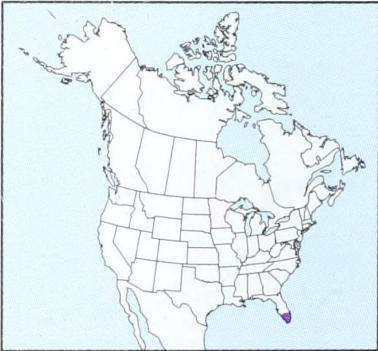
Shape Location

Twigs and weeds lined with grasses • in dense shrub or tree, 5–30 feet above ground • built by all adults in colony • nest holds up to 20 eggs • 3–6 pale blue eggs per female; oval to long oval, 1.4 x 1.0 inches.

Similar Birds



GROOVE-BILLED ANI
Distinctive grooves on high ridge of upper mandible; smaller bill with culmen not extending above crown; different call.



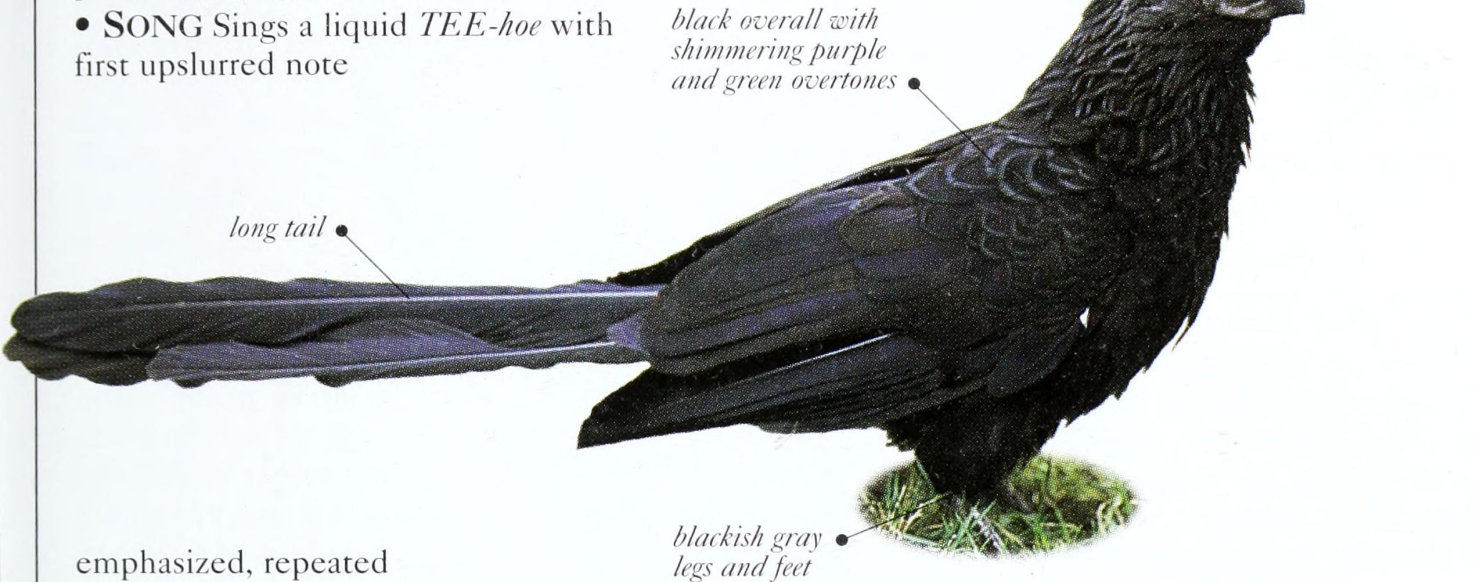
Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 4.2 ounces
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Family CUCULIDAE	Species <i>Crotophaga sulcirostris</i>	Length 12–14 inches	Wingspan 16–18 inches
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GROOVE-BILLED ANI

Easily distinguished as an ani by its black plumage and its parrotlike bill, this member of the cuckoo family often sleeps at night in communal roosts in trees with as many as thirty to forty birds. During breeding season, three to four pairs of birds build and share one nest. The laterally compressed black bill has a series of three to four parallel grooves in the upper mandible that are difficult to see except at close range. It shows paler scalloping on the chest and back.

- **SONG** Sings a liquid *TEE-hoe* with first upslurred note



emphasized, repeated 10–12 times. The vocalization has a flickerlike quality.

- **BEHAVIOR** Gregarious. Follows livestock to pick ticks off their backs or eat insects swarming around them. Eats mainly insects and spiders but also takes lizards, seeds, fruits, and berries. Lives in groups of 1–4 monogamous pairs and several additional “helpers” on permanent territories. All group members contribute to territorial defense, nest building, and rearing of young. Often dips and wags tail from side to side. Groups often fly 1 at a time from 1 spot to the next.

- **BREEDING** Monogamous. Communal.
- **NESTING** Incubation 13–14 days by both sexes and by alpha male at night. Altricial young remain in nest 6–7 days, fed by all adults. First flight at 10 days. 1–2 broods per year.

Flight Pattern

A diagram illustrating the flight pattern of a Groove-billed Ani. It shows a sequence of four birds in flight, connected by a dashed line. The birds are shown in alternating positions of rapid wing beats and short glides, moving from left to right.

Flies low to the ground, alternating between rapid shallow wing beats and short glides.

Nest Identification

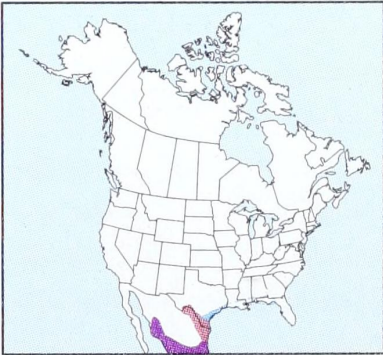
Shape Location

Sticks lined with fresh vegetation • in low tree or shrub, 5–15 feet above ground • built by both sexes and extra birds • nest may contain up to 16–20 eggs • 3–4 pale blue eggs per female; oval to long oval, 1.3 x 1.0 inches.

Similar Birds

SMOOTH-BILLED ANI
Larger bill with higher arched culmen reaching above level of crown; no grooves in upper mandible; voice differs • only in the East.

COMMON GRACKLE
Smaller long pointed bill; pale eyes • male has long keeled tail.



Plumage Sexes similar	Habitat	Migration Migratory	Weight 3.1 ounces
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DATE _____ TIME _____ LOCATION _____

Family TYTONIDAE	Species <i>Tyto alba</i>	Length 14–20 inches	Wingspan 43–47 inches
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BARN OWL

Associating more closely with man than any other owl, the nearly cosmopolitan Barn Owl often roosts and nests in buildings and hunts in areas cleared for agriculture, particularly meadows and pastures. It is perhaps the most distinctive looking owl with its long legs and heart-shaped “monkey” face. The unexpected gasping screech of this owl nearby in the darkness can raise the hair on the back of one’s head. Like other species of owls it can locate and capture its prey in total darkness using its hearing alone. This is accomplished with asymmetrically positioned ear openings, and the aid of the facial disks.

- **SONG** Harsh hissing screaming grating whistling gasp, *eeeeeeSEEek*.
- **BEHAVIOR** Nocturnal. Feeds primarily on small mammals such as rodents and shrews, but occasionally takes small birds. May nest during any month of the year, and pairs are believed to mate for life. Many farmers encourage the presence of this excellent mouser in their barns.
- **BREEDING** Monogamous.
- **NESTING** Incubation 29–34 days by female. Semialtricial young stay in nest 55–65 days. Fed by both sexes. 1–3 broods per year.

Flight Pattern

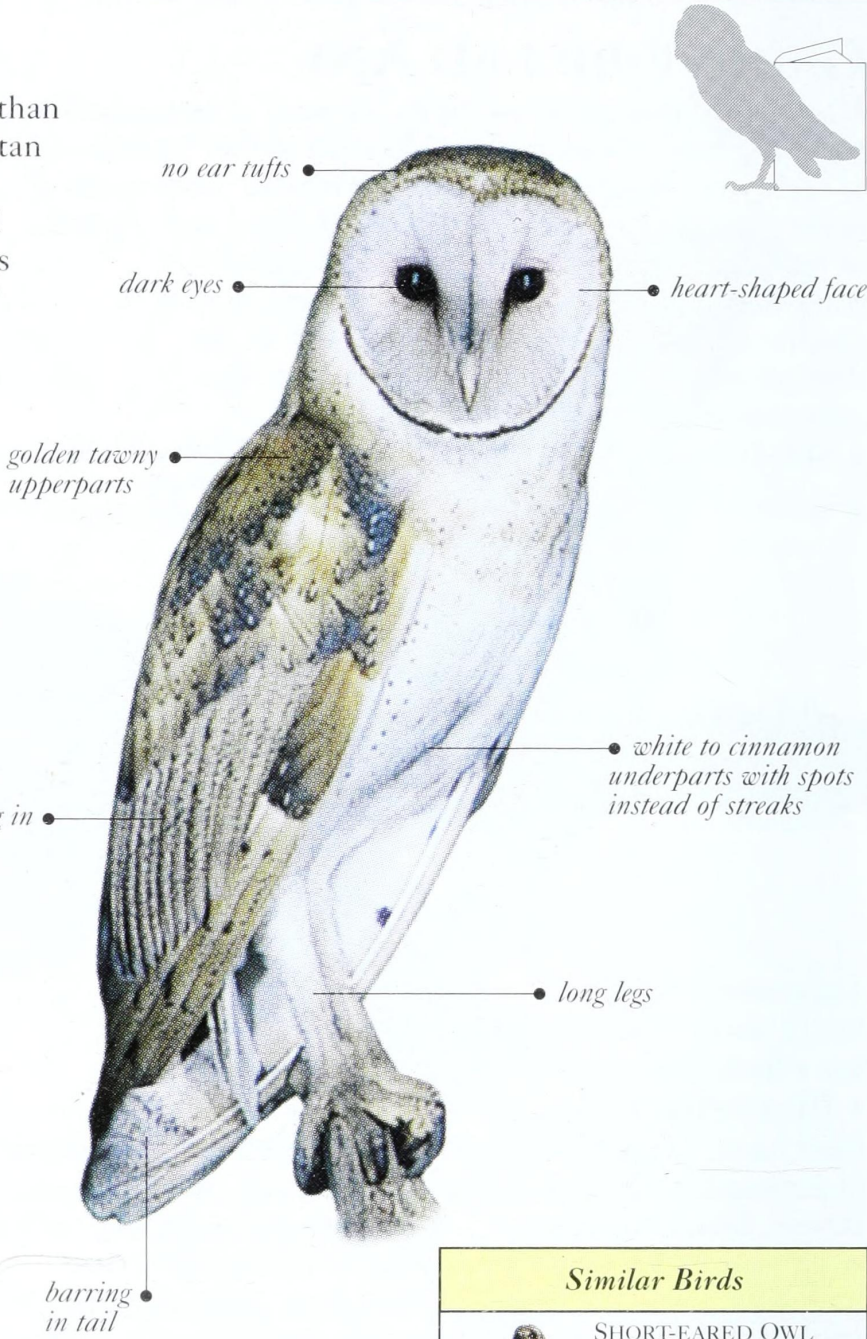
Slow light silent mothlike flight.

Nest Identification

Shape

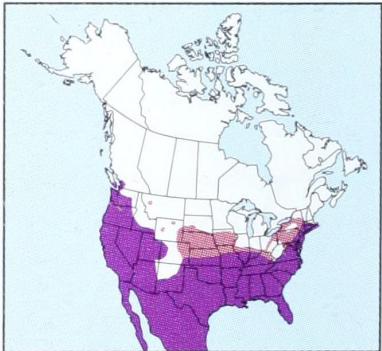
Location

Debris arranged into crude depression • in tree cavity, barn loft, building, nest box, crevice, mine shaft, or cave • 2–12 whitish eggs, sometimes nest-stained; short subelliptical, 1.7 inches long.



Similar Birds

SHORT-EARED OWL
Yellow to orange eyes; short ear tufts; heavily streaked underparts; often diurnal.



Plumage Sexes similar	Habitat	Migration Some migrate	Weight 1.1 pounds
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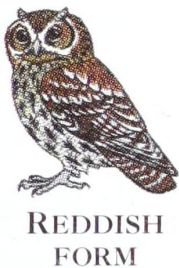
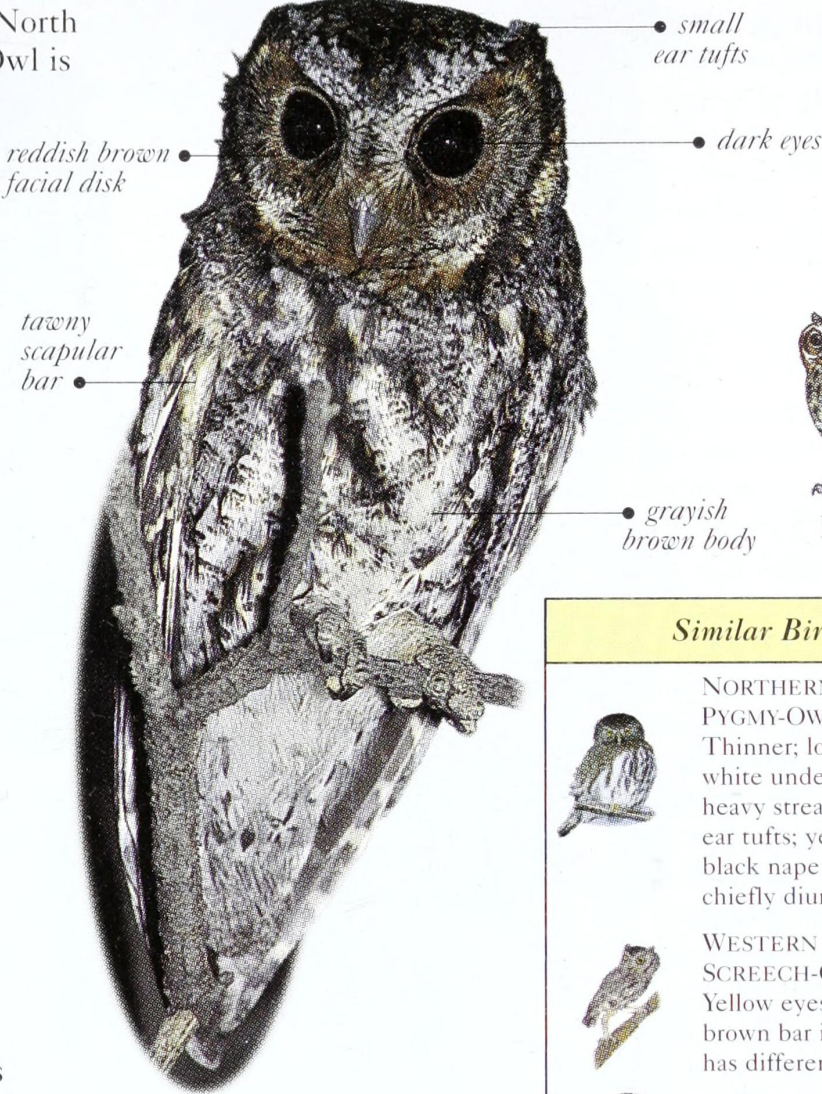
DATE _____ TIME _____ LOCATION _____

Family STRIGIDAE	Species <i>Otus flammeolus</i>	Length 6–7 inches	Wingspan 13 inches
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FLAMMULATED OWL

One of the smallest owls in North America, the Flammulated Owl is also the only small owl with dark, not yellow, eyes. This owl's ear tufts are minute and hardly noticeable. The Flammulated Owl has two color phases, reddish and gray, with the former more common in the southeastern part of the bird's range. The natural history of this diminutive North American owl is poorly known.

- **SONG** *Boo-BOOT* with emphasis on the second note of the song. A series of single paired low hoarse hollow hoots is given repeatedly at intervals of 2–3 seconds.
- **BEHAVIOR** Little is known. The bird is nocturnal. It feeds primarily on insects, including moths taken in flight and arachnids such as spiders and scorpions gleaned from the ground or the foliage of trees in its habitat. Sometimes will take as its prey various small mammals or other birds. It frequents primarily open pine and oak forests and spruce-fir forests in mountains as high that are 8,000 feet.
- **BREEDING** Monogamous. Sometimes has been observed living in loose colonies.
- **NESTING** Incubation 21–26 days by female. Semialtricial young remain in nest about 25 days. Young are fed by both sexes. 1 brood per year.



Similar Birds

NORTHERN PYGMY-OWL
Thinner; longer tail; white underparts with heavy streaking; lacks ear tufts; yellow eyes; black nape patches; chiefly diurnal.

WESTERN SCREECH-OWL
Yellow eyes; lacks brown bar in scapulars; has different voice.

WHISKERED SCREECH-OWL
Longer ear tufts; yellow eyes; different voice.

NOTE: These are all permanent residents of the woodlands in the West. There are no similar birds ranging in the East.

Flight Pattern

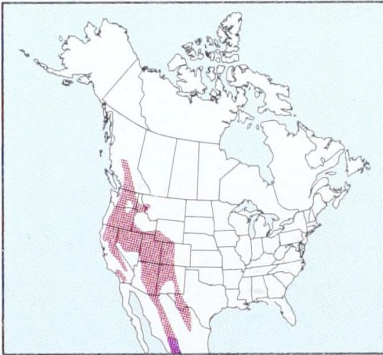
Slow light steady wing beats.

Nest Identification

Shape

Location

• **POPULATION** Widespread and common in range, though slight declines are possible. Highly migratory; strays have made it to Florida and the Gulf Coast.



Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.9 ounces
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DATE _____ TIME _____ LOCATION _____

Family STRIGIDAE	Species <i>Otus asio</i>	Length 8–10 inches	Wingspan 18–24 inches
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EASTERN SCREECH-OWL

Perhaps the best-known owl in eastern North America, this small tufted bird is found in a great variety of habitats, from wooded lots to urban gardens. It is able to flatten its ear tufts, which gives the head a rounded appearance. There are two distinct color phases, reddish brown and gray, plus there are brown intermediates. Its voice is not a screech but rather a mournful whinny familiar to many.

• **SONG** Series of melancholy tremulous whistles descending in pitch; drawn-out trilling note. Simple to imitate.

• **BEHAVIOR** Nocturnal; becomes active at dusk. Feeds on wide variety of small vertebrates and invertebrates, including insects, arachnids, crayfish, mammals, amphibians, reptiles, birds, and fish. When using a cavity for a day roost, often will sit in the entrance. When approached on its roost, will flatten its body, erect its ear tufts, and close its eyes in an attempt to hide by blending into the background.

• **BREEDING**

Monogamous.

• **NESTING**

Incubation about 26 days mostly by female.

Semialtricial young stay in nest about 28 days. Fed by both sexes. 1 brood per year.

• **POPULATION** Widespread and fairly common, but with gradual decline.

• **BIRDHOUSES** Will roost and nest in nesting boxes sized for wood ducks or flickers.

Flight Pattern



Buoyant flight with silent wing beats.

Nest Identification

Shape		Location	
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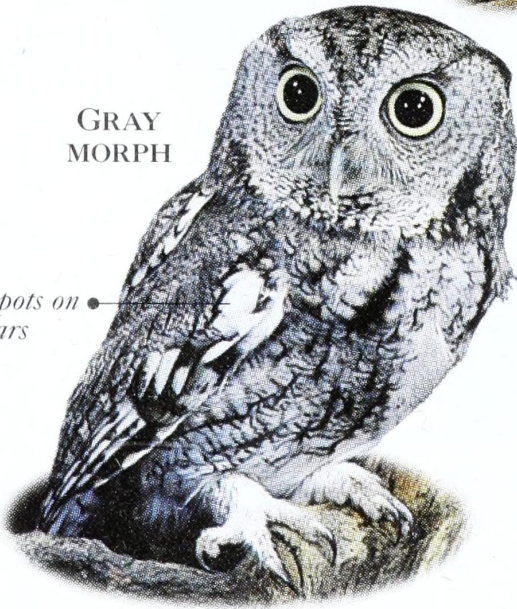
Lined with feathers and debris from food • 10–30 feet above ground in tree • 2–8 white eggs; round oval, 1.4 inches long.

RED MORPH



BROWN INTER.

GRAY MORPH



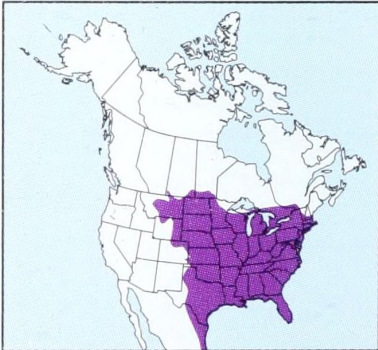
Similar Birds



NORTHERN SAW-WHET OWL
Smaller; lacks ear tufts; blackish bill; large white spots on upperparts; small white streaking on forehead, crown, and nape.



WESTERN SCREECH-OWL
Gray to brown; dark bill; different voice • western range.



Plumage Sexes similar	Habitat 	Migration Nonmigratory	Weight 5.9 ounces
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Family STRIGIDAE	Species <i>Bubo virginianus</i>	Length 18–25 inches	Wingspan 36–60 inches
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GREAT HORNED OWL

The most widespread owl in North America and perhaps the most powerful, this owl often attacks animals much larger and heavier than itself, including domestic cats, skunks, and porcupines. Its color varies regionally from pale arctic birds to dark northwestern ones.

- **SONG** Series of 3–8 bold deep hoots, with the second and third hoots often running together, *Who!* *Who-who-who!* *Who!* *Who!* Often described as “You awake? Me too!” Female’s hooting is higher in pitch.
- **BEHAVIOR** Chiefly nocturnal; becomes active at dusk. Sometimes hunts during the day. Takes wide variety of vertebrates; primarily feeds on mammals, but also eats birds, reptiles, and amphibians. Often aggressively defends nest and young to the point of striking humans who venture too close.
- **BREEDING** Monogamous. One of the earliest nesting species, with eggs laid in winter.
- **NESTING** Incubation 28–35 days mostly by female. Young stay in nest 35–45 days. Fed by both sexes. 1 brood per year.

large “horns” on head

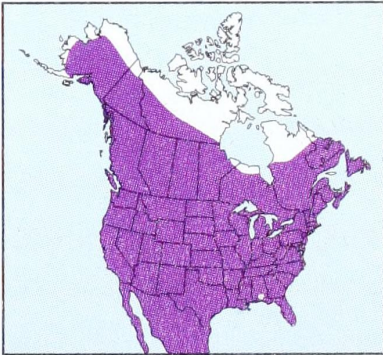


- yellow eyes
- rusty facial disks
- white chin and throat
- mottled barred brownish gray upperparts

Similar Birds



- LONG-EARED OWL
Smaller and thinner; ear tufts closer together; vertical streaking, not horizontal barring, on underparts.
- GREAT GRAY OWL
Larger; lacks ear tufts; large grayish white facial disks ringed with dark brown concentric circles; brown upperparts barred with dark browns and white; whitish underparts barred and streaked with browns; yellowish bill; long brownish tail barred with dark browns and white.



Flight Pattern	
Direct flap-and-glide flight with strong, silent wing beats.	

- **POPULATION** Fairly common to common. Widespread.
- **BIRDHOUSES** Accepts artificial nesting platforms.
- **CONSERVATION** Many are killed by hunters and farmers.

Nest Identification	
Shape	
Location	

Abandoned nest of larger bird • large cavities, broken-off snags, buildings, ledges • 20–60 feet above ground • 1–5 dull whitish eggs; elliptical, 2.7 inches long.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 3.0 pounds
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DATE _____ TIME _____ LOCATION _____

Family STRIGIDAE	Species <i>Nyctea scandiaca</i>	Length 20–27 inches	Wingspan 54–66 inches
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SNOWY OWL

A heavy-bodied, large-headed owl of open areas, this bird breeds on Arctic tundra and winters on grasslands, marshes, coastal beaches, and dunes. Regional crashes of Arctic lemming populations force these owls far south in some winters. This is our only all-white owl. Females and juveniles are similar, and show more dusky barring than males.

- **SONG** Piercing whistle and bold, growling bark, *krow-ow*, which can carry for more than a mile. Usually silent outside breeding season.
- **BEHAVIOR** Active in daylight and darkness. Often perches on ground or close to it on posts, rocks, dunes, ice, hay bales, or buildings. Eats primarily small mammals (voles and lemmings on breeding grounds), but takes some birds and fish. Male defends nest and young fearlessly; will give “crippled bird” act to lure predators away from nest.
- **BREEDING** Monogamous.
- **NESTING** Incubation 31–34 days by both sexes or female only. Young stay in nest 14–21 days, fed by both sexes. First flight at 43–57 days. 1 brood per year. Number of eggs depends on food supply; in poor lemming years, pairs may not breed.
- **POPULATION** Fairly common on breeding grounds; rare to casual south of breeding range.



MALE

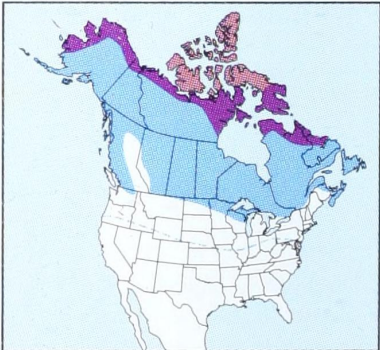


FEMALE

Similar Birds



BARN OWL
White to cinnamon-buff underparts; golden-buff upperparts; heart-shaped face; dark eyes.



Flight Pattern	
Direct flap-and-glide flight with strong, deep wing beats.	

Nest Identification	
Shape	Location
Simple depression • unlined or minimally lined with moss, lichen, and plucked grass • on raised site with good visibility • built by female • 3–11 whitish eggs that become nest-stained, short elliptical or subelliptical, 2.2 inches long.	

Plumage Sexes differ	Habitat	Migration Irregular	Weight 4.0 pounds
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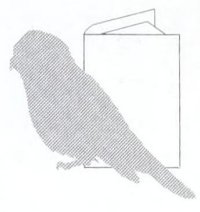
Family STRIGIDAE	Species <i>Surnia ulula</i>	Length 14–17 inches	Wingspan 33 inches
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NORTHERN HAWK-OWL

This crow-sized hawklike owl of boreal forests and northern muskegs often perches conspicuously at the top of a conifer and slowly raises and lowers its long rounded tail in the manner of a kestrel. It has no ear tufts or “horns.”

• **SONG** Rolling trilling, 2-syllable whistle, *killy-killy-killy-killy*.

• **BEHAVIOR** Chiefly diurnal but sometimes hunts at night. Very tame, often allowing close approach. Flies close to ground with rapid flapping and gliding when hunting; sometimes hovers. Eats small mammals up to the size of young snowshoe hares and birds as large as ptarmigans.



dark brownish black upperparts with heavy white spotting

long rounded barred tail

yellow eyes

whitish facial disks with wide black borders or “sideburns”

whitish underparts with heavy chocolate barring

Similar Birds



BOREAL OWL
NORTHERN SAW-WHET OWL
Smaller; short tail; underparts are streaked, not barred.

LONG-EARED OWL
GREAT HORNED OWL
Ear tufts.

Flight Pattern

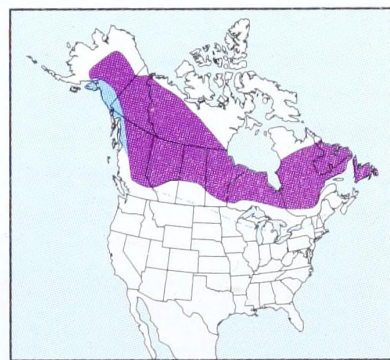
Swift low flight; often alternates several rapid wingbeats with short glides.

Nest Identification

Shape Location

Uses large cavities in trees and abandoned squirrel, crow, and hawk nests • no added materials • 10–40 feet above ground • 3–13 white eggs; blunt elliptical to oval to elongate oval, 1.6 inches long.

- **BREEDING** Monogamous.
- **NESTING** Incubation 25–30 days by female. Young stay in nest 25–35 days. Fed by both sexes. 1 brood per year.
- **POPULATION** Uncommon to rare. Remote from humans.



Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 10.5 ounces
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DATE _____ TIME _____ LOCATION _____

Family STRIGIDAE	Species <i>Glaucidium brasilianum</i>	Length 6–7 inches	Wingspan 15 inches
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FERRUGINOUS PYGMY-OWL

This very small long-tailed owl inhabits cottonwood riparian, mesquite thicket, and saguaro desert habitats. A bold little predator, it is often noisily mobbed by other birds. Its streaked head lacks ear tufts, and it often can be seen nervously flicking its long barred rufous tail. Like the Northern Pygmy-Owl, two black spots on the nape of its neck resemble a pair of eyes.

• **SONG** Fluted notes, *puk-puk-puk*; rapid, repeated *took* up to 50–60 times.

reddish brown upperparts

long barred reddish tail

yellow eyes

streaked head without ear tufts

whitish buff underparts with brown streaking

• **BEHAVIOR** Diurnal, but often most active at dusk and at dawn (crepuscular). Often roosts in dense cover. Frequently gets mobbed by songbirds, which attracts attention to the little owl. Feeds primarily on large insects and arachnids, also taking some small vertebrates. Male feeds female and young in nest cavity.

• **BREEDING** Monogamous.

• **NESTING** Incubation about 28 days by female. Young remain in nest 27–30 days. Fed by both sexes. 1 brood per year.

• **POPULATION** Uncommon. Endangered or threatened in limited range in US. Widespread in tropics.

• **CONSERVATION** Concern over small populations.

Flight Pattern



Rapid direct flight with unmuffled wing beats.

Nest Identification

Shape  Location  

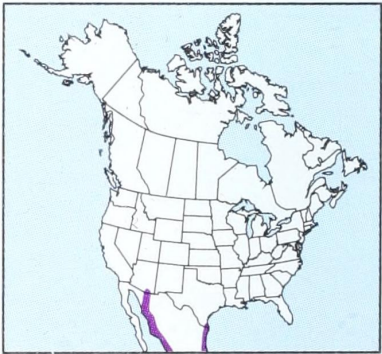
Similar Birds



ELF OWL
Smaller; short tail; no eye spots on nape; faint streaking on underparts; facial disk has black border.



NORTHERN PYGMY-OWL
Brown tail with white barring; heavy blackish brown streaking on underparts • inhabits denser forests at higher elevations; not found in deserts; inhabits montane and foothill woodlands in the West.



Plumage Sexes similar	Habitat   	Migration Nonmigratory	Weight 2.2 ounces
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DATE _____ TIME _____ LOCATION _____

Family STRIGIDAE	Species <i>Micrathene whitneyi</i>	Length 5–6 inches	Wingspan 15 inches
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ELF OWL

At about the size of a chunky sparrow, this is the smallest owl in the world. It can be recognized by its size, small round head, lack of ear tufts, and short tail. This species is perhaps more often heard than seen.

- **SONG** Puppylike chuckling and yips; erratic series of high chirps, and chattering notes. Amazingly loud for such a small owl.
- **BEHAVIOR** Nocturnal; becomes active at dusk. Roosts and nests in woodpecker holes and in natural cavities in trees, saguaro, and utility poles. Feeds primarily on insects, arachnids



(including scorpions), and some small vertebrates. Catches some insects in flight with its feet.

- **BREEDING** Monogamous.
- **NESTING** Incubation 24 days by female. Young stay in nest 28 days. Fed by both sexes. 1 brood per year.
- **POPULATION** Fairly common to common. Scarce along lower Colorado River and in southern Texas; still abundant in southern Arizona; almost eliminated in California.

Flight Pattern

Mothlike flight with silent wing beats; sometimes hovers and hawks.

Nest Identification

Shape Location

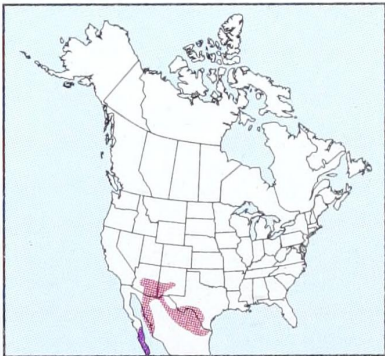
- **BIRDHOUSES** Will occasionally roost and nest in man-made boxes.

In old woodpecker hole in tree, utility pole, or cactus • no lining added • 15–50 feet above ground in sycamores or 10–30 feet above ground in saguaros • 1–5 white eggs, 1.1 inches long.

Similar Birds

FERRUGINOUS PYGMY-OWL
NORTHERN PYGMY-OWL
Longer tails; black eyespots on nape; heavily streaked underparts; diurnal

• Northern Pygmy-Owl inhabits montane and foothill woodlands in the West.



Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.4 ounces
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DATE _____ TIME _____ LOCATION _____

Family STRIGIDAE	Species <i>Athene cunicularia</i>	Length 9–11 inches	Wingspan 20–24 inches
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BURROWING OWL

This long-legged, short-tailed little owl inhabits grassland and prairies, but in its range it also can be found in similar habitats near humans such as golf courses and airports. In the West the Burrowing Owl often is associated with prairie dog towns, and the historical poisoning of the prairie dogs also brought declines in the owl's populations. The owls use an abandoned burrow for their nest and daytime roost, usually after some additional digging to enlarge and reshape it.

• **SONG** High melancholy cry, *coo-coo-roo* or *co-hoo*; twittering series of *chack* notes. If disturbed in nest, young give alarm that mimics the buzzing of a rattlesnake.

• **BEHAVIOR** Terrestrial. Primarily nocturnal and crepuscular. Perches on ground, fence posts, utility wires, rocks, or mounds near burrow during day. Inhabits open country where it feeds primarily on large insects, some of which it catches in flight, and small mammals.

• **BREEDING** Monogamous. Often colonial.

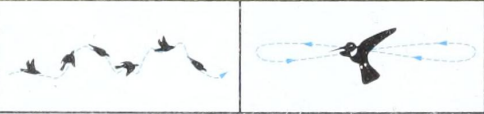
• **NESTING** Incubation 21–30 days by female. Semialtricial young remain in nest 28 days, fed by both sexes. Typically 1–2 broods per year.

• **POPULATION** Fairly common to common but local.

• **BIRDHOUSES** Will nest in artificial man-made burrows.

• **CONSERVATION** Endangered or threatened over much of its range. Declining because of prairie dog and ground squirrel poison-control programs and habitat loss. Many killed by automobiles. Some attempts at management being made due to declining local populations.

Flight Pattern



Buoyant, sometimes erratic flight, with show silent wing beats; may hover briefly above prey.

Nest Identification

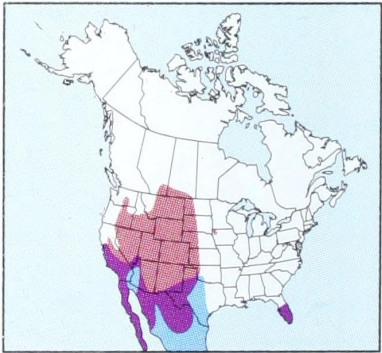
Shape   Location 



Similar Birds



SHORT-EARED OWL
Larger; long tail; short legs; buff-brown; heavily streaked upperparts and underparts.



Plumage Sexes similar	Habitat 	Migration Some migrate	Weight 5.3 ounces
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DATE _____ TIME _____ LOCATION _____

Family STRIGIDAE	Species <i>Ciccaba virgata</i>	Length 13–15 inches	Wingspan 36–40 inches
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MOTTLED OWL

In 1983 a stray individual of this medium-sized long-winged tropical owl was found in southern Texas in the lower Rio Grande Valley. A shy solitary bird, the Mottled Owl most often remains hidden among the thick foliage of the trees on its daytime roost. Upperparts are dark brown with white to buff flecking and barring. In flight it shows buff thighs and undertail coverts. It has both light and dark phases, but the only US record has been of the light morph. Juveniles are ocher-buff to pale buff overall and have whitish facial disks.

- **SONG** Calls variable. 1–3 low guttural grunts that become successively louder, *whuh-whuh*, followed by 3–5 or more accelerating sharp hoots, *WHOO, WHOO, WHOO, WHOO, WHOO*. A long drawn-out catlike wailing scream of *eeihrrr-rrr-rrr*, usually can be heard shortly after dusk or just before dawn.

- **BEHAVIOR** Solitary. Nocturnal. Roosts on low perch in thickets by day. Calls and hunts at middle levels or lower in trees. Hunts forest edges, clearings, and semiopen areas. Catches prey with talons, often while in flight. Eats small reptiles, small rodents, spiders, and large insects; not known to take other birds.

- **BREEDING** Monogamous. Solitary.
- **NESTING** Breeding biology poorly known. Estimated incubation 23–28 days by female. Semialtricial young brooded

by female; stay in nest estimated 26–35 days, fed by both sexes. 1 brood per year.

- **POPULATION** Accidental in North America in winter in lower Rio Grande Valley of southern Texas.



• broad whitish tips to outer scapulars

• brown eyes

• dark brown-mottled sides of chest

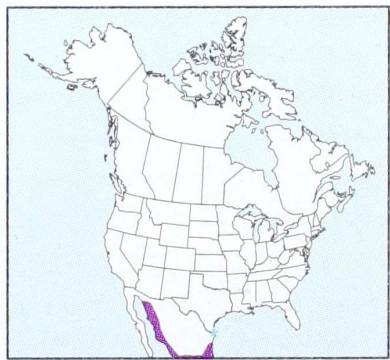
• white or tawny underparts with heavy brown streaking

• dark brown upper tail with 3–4 thin white bars

LIGHT MORPH

Similar Birds

No other medium-sized owls in this vagrant's North American range has mottled brown overall plumage and dark brown eyes.



Flight Pattern

Strong silent flight with quick shallow wing beats followed by short glides with wings bent slightly downward at tips.

Nest Identification

Shape Location

No nest materials • in natural tree hollow, broken tree stub, or abandoned holes or nests of other birds, usually 20–25 feet above ground • 2 plain white eggs; round, 1.54 x 1.25 inches.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight Undetermined
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DATE _____ TIME _____ LOCATION _____

Family STRIGIDAE	Species <i>Strix varia</i>	Length 17–24 inches	Wingspan 50–60 inches
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BARRED OWL

The “hoot owl” of southern swamps, this puffy-headed owl can also be found in woodlands. It lacks ear tufts, is stoutly built, and is heavily streaked, spotted, and variegated brown, buff, and white. This is one of only three large owls with dark eyes in North America.

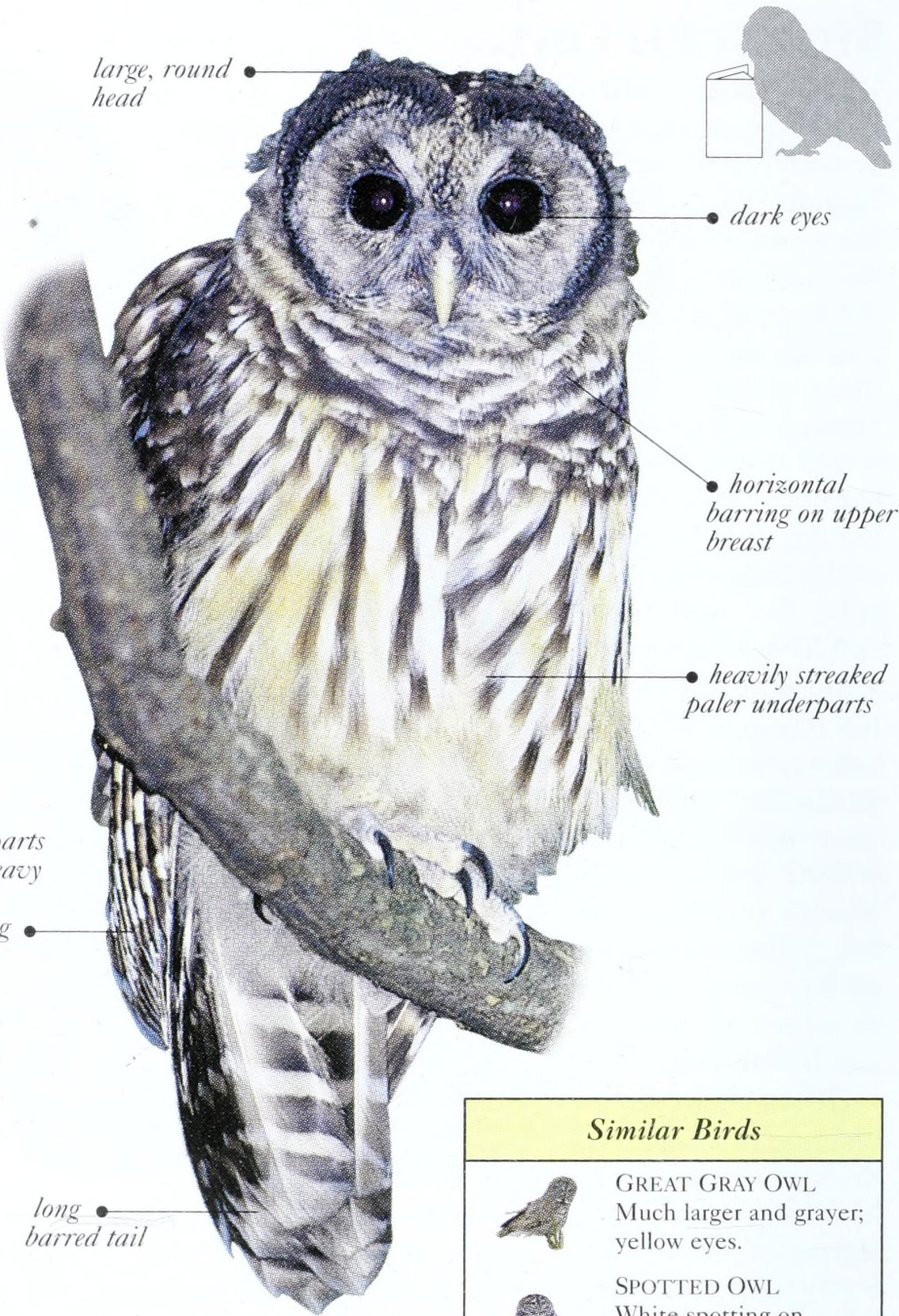
• **SONG** Usually 8 or more drawn-out notes, “Who cooks for you; who cooks for you-all?” Call is drawn-out, descending *hoooAwwllll*. Group of 2 or more owls make a loud, excited caterwauling. Often heard in daytime. Responds readily to imitations of its call by coming closer and often calling back.

• **BEHAVIOR** Mostly nocturnal and crepuscular but often active in daylight. Prefers deep woods; inhabits conifer, riparian, and swampy habitats. Feeds on wide variety of animals, including small mammals, birds, frogs, salamanders, lizards, snakes, fish, large insects, crabs, and crayfish.

• **BREEDING** Monogamous. Thought to pair for life.

• **NESTING.** Incubation 28–33 days by female. Young stay in nest 42 days. Fed by both sexes. 1 brood per year.

• **POPULATION** Very common to common and widespread. Swamp habitat population in the South has diminished. Range increasing now in the Northwest, where hybridizes with Spotted Owl.



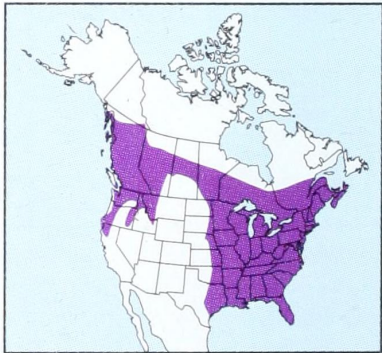
Similar Birds



GREAT GRAY OWL
Much larger and grayer; yellow eyes.



SPOTTED OWL
White spotting on underparts, not barring or streaking • western range.



Flight Pattern	
Short flights with steady, shallow wing beats, longer flights on silent rapid wing strokes followed by short glide.	
Nest Identification	
Shape	Location

In the East uses abandoned nests • 15–80 feet above ground in tree • 2–3 white eggs, 2 inches long.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 1.4 pounds
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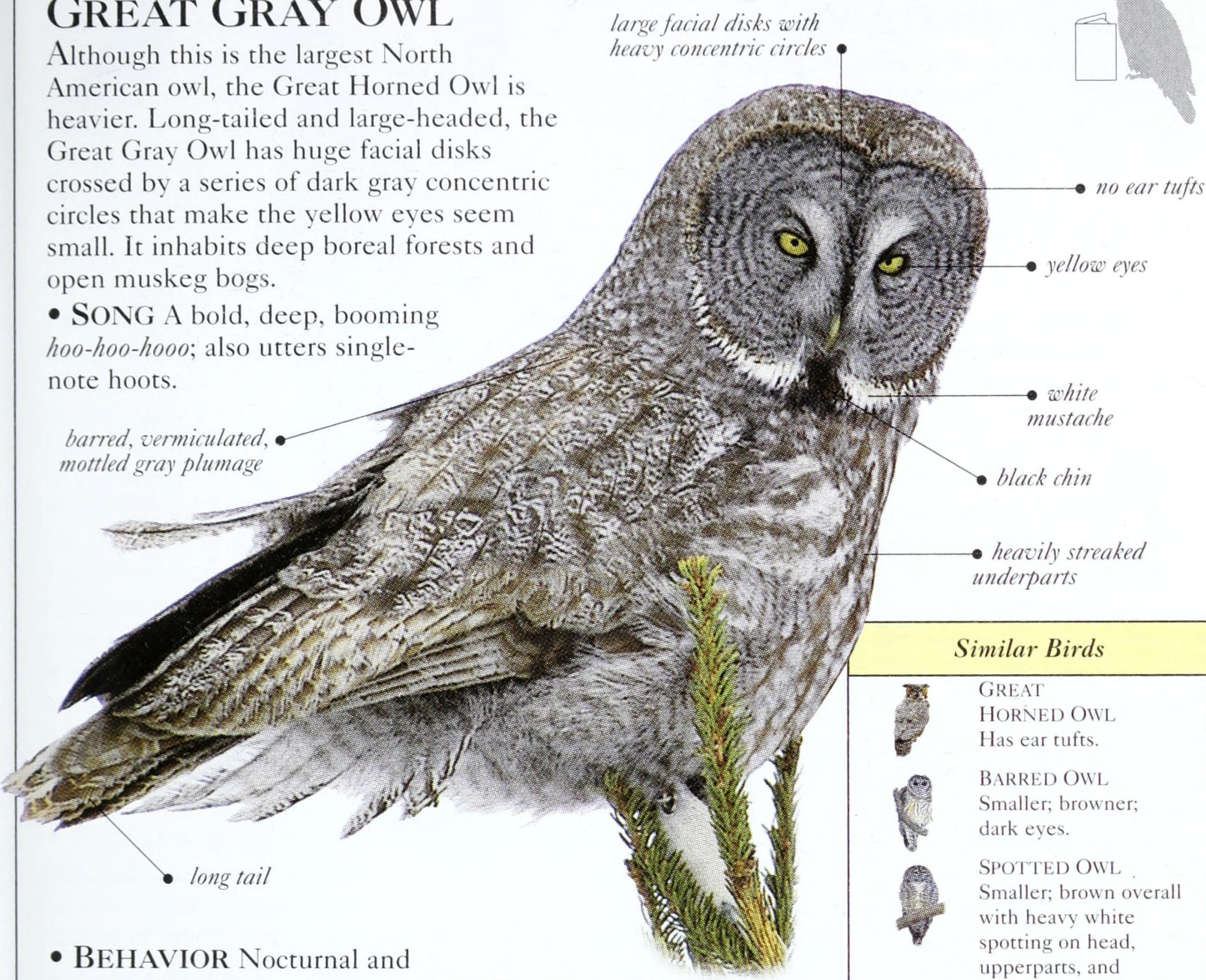
DATE _____ TIME _____ LOCATION _____

Family STRIGIDAE	Species <i>Strix nebulosa</i>	Length 24–33 inches	Wingspan 54–60 inches
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GREAT GRAY OWL

Although this is the largest North American owl, the Great Horned Owl is heavier. Long-tailed and large-headed, the Great Gray Owl has huge facial disks crossed by a series of dark gray concentric circles that make the yellow eyes seem small. It inhabits deep boreal forests and open muskeg bogs.

• **SONG** A bold, deep, booming *hoo-hoo-hooo*; also utters single-note hoots.



- **BEHAVIOR** Nocturnal and crepuscular; often active in daylight. Fearless and often tame enough to allow close approach by humans. Widespread winter food shortages in the North often cause large, irruptive flights far south of normal wintering range. As in other owls, male feeds brooding female and young in nest.
- **BREEDING** Monogamous.
- **NESTING** Incubation 28–36 days by female. Young remain in nest 21–28 days. Fed by both sexes. 1 brood per year.

Similar Birds



GREAT HORNED OWL
Has ear tufts.

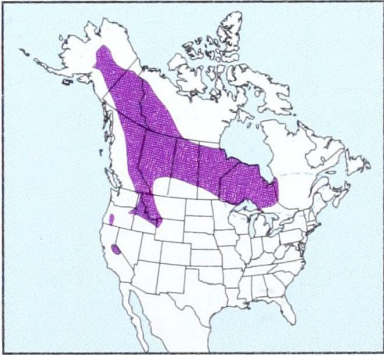


BARRED OWL
Smaller; browner; dark eyes.



SPOTTED OWL
Smaller; brown overall with heavy white spotting on head, upperparts, and underparts; dark brown eyes; brown tail barred with white and dark brown; yellowish bill; whitish facial disks with brown concentric circles and bordered dark brown
• western range.

• **POPULATION** Rare to uncommon. Most of this bird's range is remote at present from human impact. Decline in numbers being experienced in southern parts of range probably is because of habitat loss.



Flight Pattern

Silent direct flight with quick, deep wing strokes or with several powerful wing beats followed by a glide.

Nest Identification

Shape

Location

Abandoned nests • 1–50 feet above ground on broken-off tops of snags and stumps • 2–5 white eggs; short elliptical to short oval, 2.1 inches long.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 1.7 pounds
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DATE _____ TIME _____ LOCATION _____

Family STRIGIDAE	Species <i>Asio otus</i>	Length 13–16 inches	Wingspan 36–42 inches
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LONG-EARED OWL

The most slender and most nocturnal of the large owls is perhaps the most overlooked. It is hard to detect because of its cryptic coloration, shy habits, and the ability to “freeze” against a perch with body flattened. This owl often uses the same winter perch day after day, resulting in a large accumulation of pellets and droppings beneath it; this telltale evidence can be used to locate the roosting owl above. Although the female is larger, both sexes appear similar. Frequents a wide range of habitats, from desert oases to riparian thickets to dense coniferous woodlands.

- **SONG** Melodic low hoots, *quoo-quoo-quoo*, and long *hoos*. Sometimes sounds like a barking, whining puppy. Virtually mute outside breeding season.
- **BEHAVIOR** Nocturnal. Roosts perched close to tree trunk in thick cover during day. Hunts over open fields and marshes. Feeds primarily on mouse-size mammals; sometimes takes small birds. Often gregarious on roosts in winter. Accumulated pellet contents below roost can reveal local diet, as the undigested bones, teeth, and exoskeletons of its prey are compacted within them. Chooses abandoned nest of squirrel, crow, hawk, or heron as its own nesting site.
- **BREEDING** Monogamous.



Similar Birds



GREAT HORNED OWL
Much larger, stouter build; ear tufts farther apart on head; horizontal barring beneath (not vertical streaking).



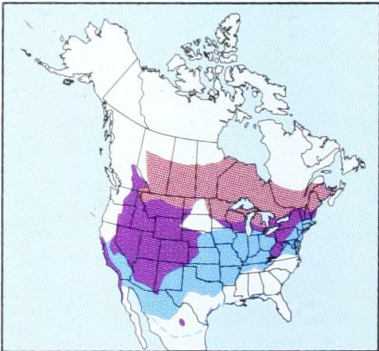
SHORT-EARED OWL
Buffier below; shorter ear tufts; often diurnal.

Flight Pattern



Buoyant, silent wing beats. Ear tufts flattened back on head in flight.

- **NESTING** Incubation 26–28 days by female. Semialtricial young stay in nest 23–26 days, fed by both sexes. 1 brood per year.
- **POPULATION** Uncommon to locally common; may be more common than suspected.



Nest Identification

Shape 	Location   
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Typically does not build nest • uses abandoned nests; sometimes tree cavity • suspected of sometimes evicting crow • 4–30 feet above ground in a tree • 2–10 white eggs; elliptical, 1.6 inches long.

Plumage Sexes similar	Habitat   	Migration Northern birds migrate	Weight 8.6 ounces
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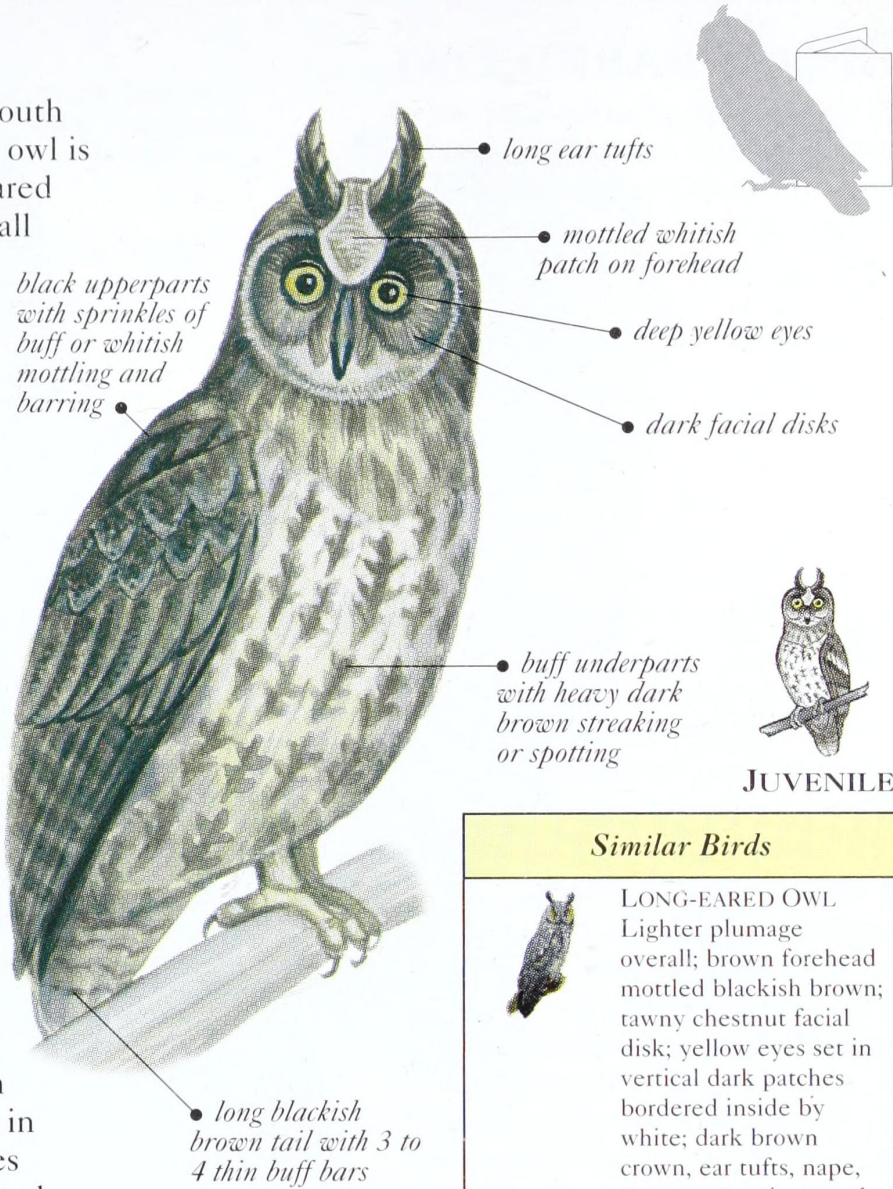
DATE _____ TIME _____ LOCATION _____

Family STRIGIDAE	Species <i>Asio stygius</i>	Length 15–17 inches	Wingspan 36–44 inches
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STYGIAN OWL

A native of Mexico, Central and South America, and the West Indies, this owl is darker and larger than the Long-eared Owl. Like that species it has two tall ear tufts or “horns,” which are set close toward the center of the forecrown. It most often nests in the tall pine trees of mountain forests, but by laying its eggs on the ground it has been quick to adapt to areas where trees have become less dense. It has been found in North America twice, in southern Texas in the winter. It appears all dark in flight, including its underwings. Juveniles are a pale buff color overall, barred with dark brown.

- **SONG** A single emphatic bass *woof*, repeated at 6- to 10-second intervals. At a distance, sounds like a deep *who* or *who-who*.
- **BEHAVIOR** Solitary. Roosts and calls from middle level to high in trees. Blends with surroundings in daytime. Nocturnal hunter. Catches prey with talons. Eats small rodents, bats, small birds, and snakes. The natural history of this bird is not well known.
- **BREEDING** Monogamous. Solitary. Male displays by clapping tips of wings together.
- **NESTING** Breeding biology poorly known. Estimated incubation by female is 24–30 days. Young altricial; brooded by female; remain in nest estimated 23–35 days, fed by both sexes. 1 brood per year.



JUVENILE

Similar Birds



LONG-EARED OWL
Lighter plumage overall; brown forehead mottled blackish brown; tawny chestnut facial disk; yellow eyes set in vertical dark patches bordered inside by white; dark brown crown, ear tufts, nape, upperparts, wings, and tail are mottled and streaked whitish and buff; white-tipped outer scapulars; whitish underparts with brown and buff streaking and barring; flashes tawny cinnamon bars at base of primaries in flight.

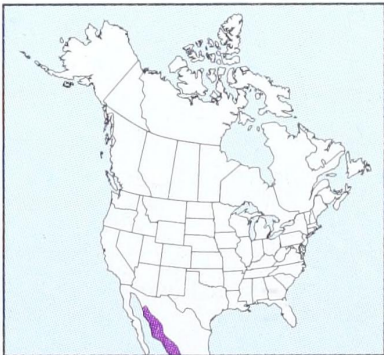
Flight Pattern

Erratic flight; buoyant with deep silent wing beats.

Nest Identification

Shape	Location
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- **POPULATION** Accidental in North America in the area of the lower Rio Grande Valley of southern Texas.
- **CONSERVATION** Vulnerable in Mexico to habitat loss due to logging operations, land clearing, and hunting.



No nest materials • in abandoned nest of other bird or occasionally on ground
• 2 white eggs; rounded, 1.6 x 1.3 inches.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 1.5 pounds
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DATE _____ TIME _____ LOCATION _____

Family STRIGIDAE	Species <i>Asio flammeus</i>	Length 13–17 inches	Wingspan 38–44 inches
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SHORT-EARED OWL

A big-headed, short-necked owl of grasslands and marshes, this bird is often seen quartering low over vegetation during the day. With tawny to buff-brown plumage, it shows large buff wing patches on the upperwing and a dark “wrist” mark on the underwing in flight. The ear tufts are very small and difficult to see unless the bird is perched. It has a streaked buff to whitish belly and white undertail coverts with faint streaking. Its diurnal activities make it frequently visible.

- **SONG** On breeding grounds this owl gives a loud *eeee-yerp*; a high-pitched grating *waowk, waowk, waowk*, like the barking of a dog; or a *toot-toot-toot-toot-toot*. When on its wintering grounds, the Short-eared Owl usually remains silent.
- **BEHAVIOR** Nocturnal and crepuscular; may hunt in late afternoons or on overcast days. Flies back and forth low over the ground, dropping feet first with wings held high onto prey. May perch on post or shrub to watch for prey. Feeds primarily on small rodents but also takes some small birds of open habitats and large insects. Uses crippled-bird display to lure intruders away from the nest or young on the ground.
- **BREEDING** Monogamous. Sometimes forms small colonies.
- **NESTING** Incubation 24–37 days by female. Semialtricial young stay in nest 21–36 days. Fed by both sexes. Typically 1 brood per year.
- **POPULATION** Fairly common. It has disappeared in parts of its southern range because of habitat loss.



Similar Birds



LONG-EARED OWL
Smaller buff upperwing and black wrist patches; heavily barred underparts; large ear tufts; nocturnal.

Flight Pattern

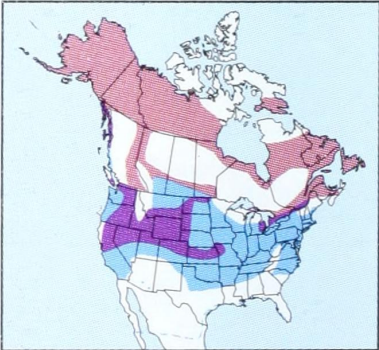
Buoyant erratic flight with flopping wing beats.

Nest Identification

Shape

Location

- **CONSERVATION** The main conservation concern for this owl is a degree of habitat loss to agriculture and also loss due to killing by shooting.



Shallow depression • lined with grass and feathers • on ground • built by female • 3–11 white eggs that become nest-stained; short elliptical, 1.5 inches long.

Plumage Sexes similar	Habitat	Migration Some migrate	Weight 11.1 ounces
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DATE _____ TIME _____ LOCATION _____

Family STRIGIDAE	Species <i>Aegolius funereus</i>	Length 8–12 inches	Wingspan 20–26 inches
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BOREAL OWL

This small flat-headed owl is seldom seen because it is strictly nocturnal and sits concealed close to the trunk of a thick conifer when on its daytime perch. Its white facial disks are bordered with black. During irruptive flight in winter, when this owl comes far south of its normal winter range into the middle and eastern US, most individuals seem to be females and many are found seeking shelter in buildings. Juveniles are similar to adults on the upperparts, but they are a rich chocolate brown below with a dark brown facial disk, whitish upturned mustache, and a white wedge between the eyes that spreads above them on the forehead.

- **SONG** Resembles high-pitched ringing *ting, ting, ting, ting*. Brief series of tremulous *hoo* notes.
- **BEHAVIOR** Nocturnal. Solitary. Prefers thick old growth coniferous forests. Feeds primarily on small rodents and other small mammals, rarely on small birds. Males cease singing after they are mated.
- **BREEDING** Polygamous.
- **NESTING** Incubation 26–37 days by both sexes. Semialtricial young stay in nest 28–36 days. Fed by female with food brought by male. 1 brood per year.



Similar Birds



NORTHERN SAW-WHET OWL
Smaller; dark bill; white streaked head, not spotted • juvenile has tawny-cinnamon underparts without streaking.



Flight Pattern



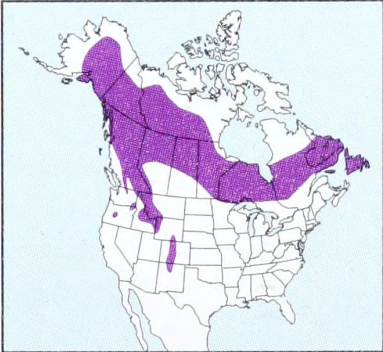
Short flights on rapidly beating wings; longer ones more buoyant with shallow somewhat fluttering silent wing beats.

Nest Identification

Shape  

Location   

- **POPULATION** Uncommon. Northern populations in no danger; status of western populations not well known, but the Boreal Owl is vulnerable to logging operations.
- **BIRDHOUSES** Will use man-made nest boxes.



In tree cavity, usually a woodpecker hole • no lining added • 20–80 feet above ground • 2–6 white eggs, 1.3 inches long.

Plumage Sexes similar	Habitat  	Migration Irregular	Weight 3.6 ounces
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DATE _____ TIME _____ LOCATION _____

Family STRIGIDAE	Species <i>Aegolius acadicus</i>	Length 7–8 inches	Wingspan 17–20 inches
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NORTHERN SAW-WHET OWL

The incessant call of the male Northern Saw-whet Owl during breeding season sounds like a saw being sharpened or whetted. Some winters numbers of this little owl are found well south of the normal breeding range. This species is one of the smallest owls. Note the lack of ear tufts, dark bill, and white eyebrows. Females are larger than males. Juveniles have tawny-cinnamon underparts, chocolate-brown upperparts with white spotting, and a bold white Y from beak to eyebrows.

- **SONG** Repeated 1-note whistle of *too, too, too, too, too* or *sch-whet, sch-whet*, sometimes for hours at a time. Sings during breeding season only; singing decreases after mate is attracted. Voice may carry 0.5 mile or more.
- **BEHAVIOR** Solitary or in pairs. Eats small rodents, large insects, birds, and bats. Hunts primarily at night. Perches low, searching for prey, then flies down and snatches it with talons. Territorial birds often respond to imitations of their call by speeding up the rate of their calling; often attracted to playbacks of their call.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 26–29 days by female. Semialtricial young stay in nest 27–34 days. Fed by both sexes: Male brings food, then female feeds young for about first 18 days. 1 brood per year.
- **POPULATION** Fairly common. Declining.



Similar Birds



BOREAL OWL
Larger; white face with blackish border; darker brown head with contrasting white spots; pale bill.

Flight Pattern

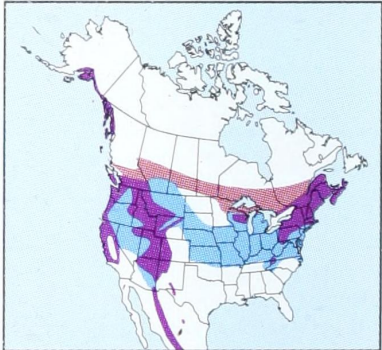


Silent buoyant direct flight with fluttering wing beats.

Nest Identification

Shape  Location 

- **BIRDHOUSES** Uses nest boxes about the size of Wood Duck boxes.
- **CONSERVATION** Declining in parts of range due to habitat loss from logging, air pollution, and adelgid tree kills in high peaks of southern Appalachians.



No nest materials • in tree cavity, abandoned woodpecker hole, or nesting box, 14–60 feet above ground • 4–7 white eggs; oval to ovate, 1.2 inches long.

Plumage Sexes similar	Habitat 	Migration Most do not migrate	Weight 2.6 ounces
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DATE _____ TIME _____ LOCATION _____

Family CAPRIMULGIDAE

Species *Chordeiles acutipennis*

Length 8–9 inches

Wingspan 20–23 inches

LESSER NIGHTHAWK

Although it has a similar appearance to its larger cousin, the Common Nighthawk, this bird generally has a much lower flight and the male does not power dive during its mating display. The white primary bar, which is buffy on females, is slightly nearer the tip of the shorter rounder wing. The male also has a white tail band and buffy underparts with light barring. The female has a buffy throat. This cryptically colored bird of western arid and semiarid lowlands becomes torpid in cold weather when food is lacking. Juveniles are similar to females.

• **SONG** On breeding grounds the Lesser Nighthawk utters a quick low *chuck chuck*. It also has a soft froglike trill. In fact, one former name of this bird is the Trilling Nighthawk.

• **BEHAVIOR** This is a crepuscular and nocturnal bird. Insectivorous, it forages for food by flying near to the ground, catching insects in the air. Feeds late into the morning, unlike most other nighthawks. It is attracted to bright outdoor lights for feeding on flying insects. Wanders wildly for food; not territorial. Males perform an aerial courtship display.

• **BREEDING** Monogamous. Loosely colonial.

• **NESTING** Incubation 18–19 days, mostly or entirely by female. Young semiprecocial; first flight at 21 days, fed by both sexes. 1 brood per year.

• **POPULATION** The Lesser Nighthawk is fairly common in its habitat. While it is rare in migration on the Gulf Coast, it is casual in winter in Florida, Texas, and California.

Flight Pattern

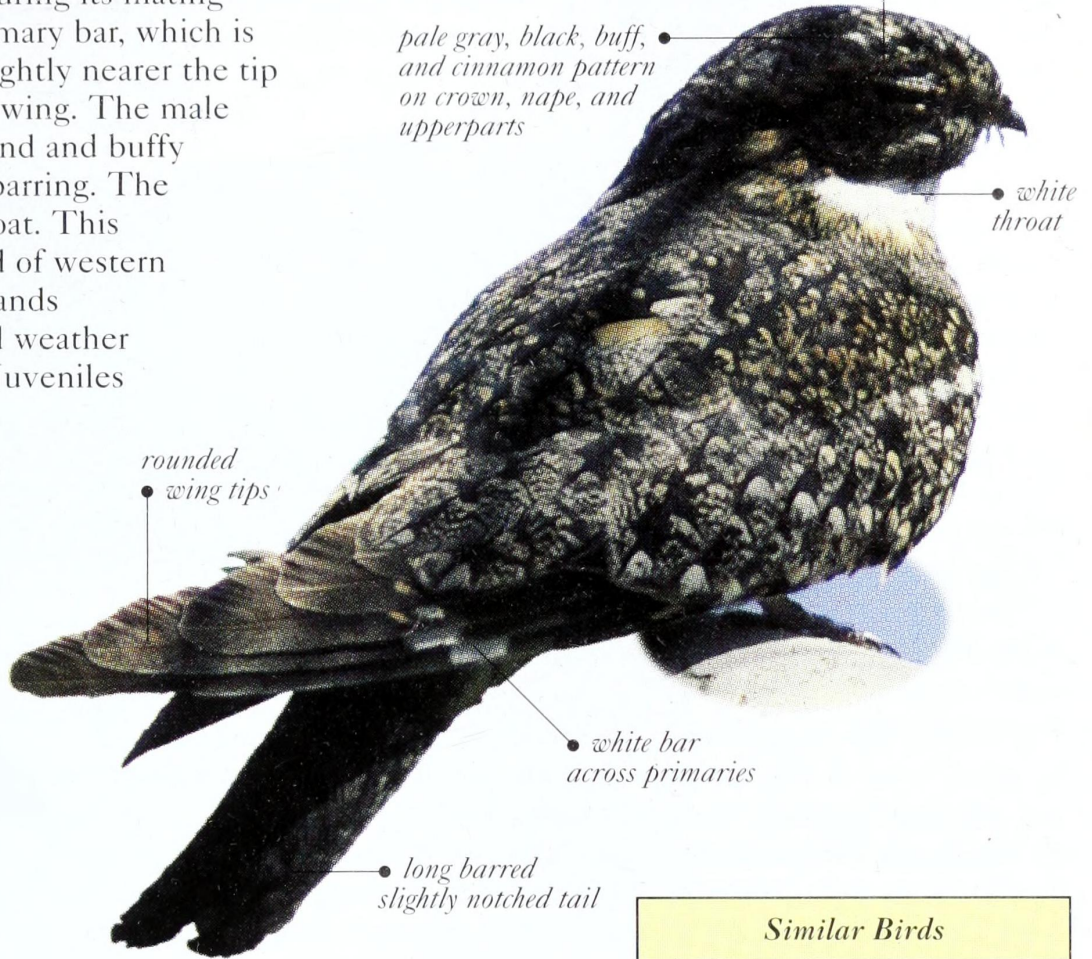


Darting flight with quick and erratic wing beats; often changing direction; buoyant.

Nest Identification

Shape  Location   

No nest • on bare ground, atop sand or pile of pebbles, occasionally on flat gravel roofs • 2 white to pale gray eggs with small gray, brown, and lavender dots; oval to elliptical oval, 1.1 x 0.8 inches.



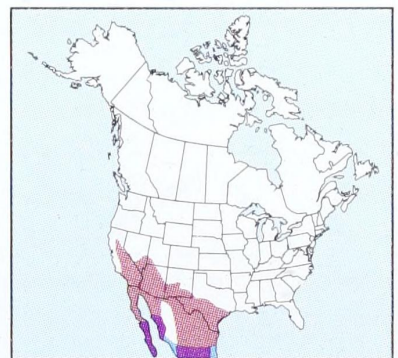
Similar Birds



COMMON NIGHTHAWK
Longer, more pointed wings; longer tail; white band on primaries; darker overall; voice differs; power dives.



COMMON PAURQUE
Long rounded tail; shorter rounder wings.



Plumage Sexes similar

Habitat    

Migration Migratory

Weight 1.8 ounces

DATE _____ TIME _____ LOCATION _____

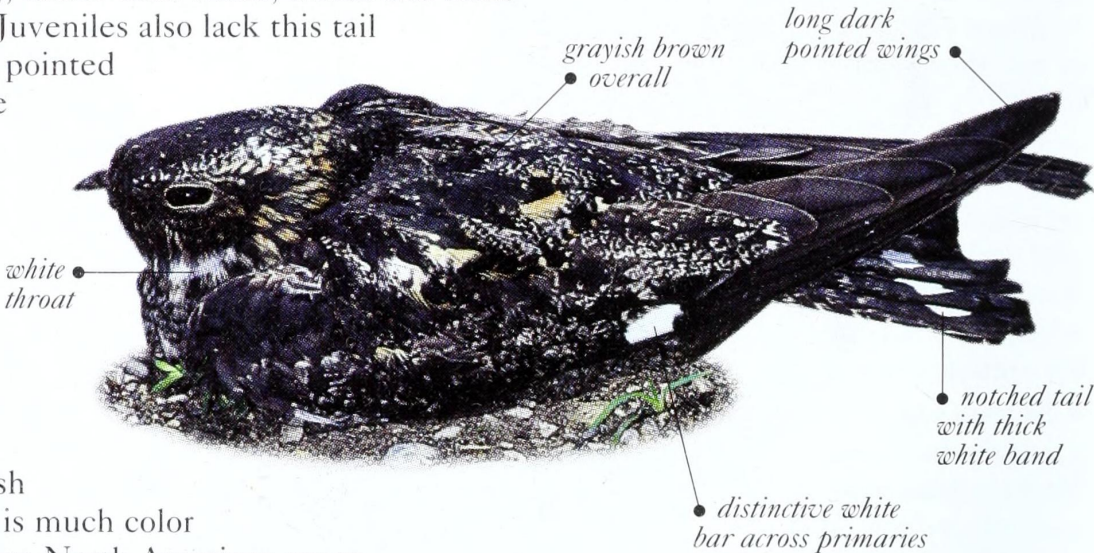
Family CAPRIMULGIDAE	Species <i>Chordeiles minor</i>	Length 8–10 inches	Wingspan 21–24 inches
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COMMON NIGHTHAWK

Like all members of the nightjar family, the adult bird flutters its gular pouch during intense heat to cool itself. The eggs and nestlings are sometimes carried to another location if temperatures become extreme. The female is similar to the male, but has a buffy, rather than white, throat and lacks the white tail band. Juveniles also lack this tail band. Note the long pointed wings with the white bar through the primaries, and the mothlike flight of the “bullbat,” which is the colloquial name used for this nighthawk in the South. Although predominantly grayish brown overall, there is much color variation over the large North American range.

- **SONG** Has raspy nasal somewhat froglike call of *peeant* or *beant*.
- **BEHAVIOR** Solitary or in small groups. Sometimes migrates in large flocks in fall. Crepuscular and nocturnal, but often feeds day or night, catching insects in flight. Eats a wide range of flying insects. Attracted to street lights and other outdoor lights at night to scoop up swarming insects. Bird species seen by many because of its habit of feeding over towns and cities. Skims over lakes and streams to drink water from surface.
- **BREEDING** Monogamous. Solitary. Male displays with a courtship power-dive, at the end of which the air rushes through his wings, making a loud *sw-r-r-r-oonk* sound like a rubber band or banjo string being plucked.
- **NESTING** Incubation 19–20 days, mostly by female. Young semiprecocial; first flight at 21 days, fed by both sexes. 1–2 broods per year.
- **POPULATION** Common but declining in parts of continent.

- **CONSERVATION** Neotropical migrant. Became common in towns and cities with the introduction of flat graveled roofs in mid-1800s as well as increased use of outside lighting, which attracts insects.



Similar Birds



LESSER NIGHTHAWK
Shorter, more rounded wings; whitish bar across primaries slightly closer to tip; paler upperparts with more uniform mottling; generally flies closer to ground; does not power-dive; voice differs.



ANTILLEAN NIGHTHAWK
Smaller; shorter wings; more fluttery flight; much more buffy overall; voice differs
• rare in eastern range.

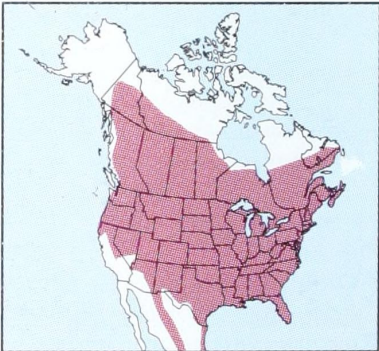
Flight Pattern

Darting flight on long pointed wings with erratic twists and turns and changes of direction. Wing beats slow and steady.

Nest Identification

Shape

Location



Plumage Sexes similar	Habitat	Migration Migratory	Weight 2.2 ounces
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Family CAPRIMULGIDAE	Species <i>Chordeiles gundlachii</i>	Length 8 inches	Wingspan 20–22 inches
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ANTILLEAN NIGHTHAWK

This rather rare and local nighthawk of the West Indies visits and nests in southern Florida and the Florida Keys every summer. The Antillean Nighthawk was formerly considered a subspecies of the Common Nighthawk and is extremely similar to that species. It is best distinguished from Common Nighthawk by voice. Females of the two species are probably not distinguishable. Its biology is not well known.



- **SONG** Has call of *pity-pit-pit* or *kady-dit, kady-dit, kady-dit*.
- **BEHAVIOR** Crepuscular and nocturnal. Like other nightjars, perches parallel to branch, rail, wire, or perch, not perpendicular like other perching species. Catches insects while in flight. Similar to the Common Nighthawk, males perform a power-dive as part of their aerial courtship display, but the booming sound produced at the bottom of the dive is higher pitched and does not travel as far.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Breeding biology poorly known, but incubation estimated at 19–20 days, mostly by female. Young semiprecocial; first flight takes place around 21 days. Fed by both sexes. 1–2 broods per year.
- **POPULATION** Rare to uncommon on Florida Keys and the southeast Florida mainland. Accidental to Louisiana and the Outer Banks of North Carolina.
- **CONSERVATION** Has increased on the Florida Keys and in the southern part of the state since the 1960s, possibly due to changes in habitat. Human development has opened up larger patches in the woody vegetation, creating favorable habitat for this species.

Similar Birds



COMMON NIGHTHAWK
Larger; longer wings; voice differs.

Flight Pattern



Fluttery and darting mothlike flight with erratic changes of direction; buoyant; slow measured wing beats.

Nest Identification

Shape  Location 

No nest • 1–2 white to olive eggs, blotched with olive, heavily marked with large dark spots; oval to elliptical oval, 1.2 inches long.



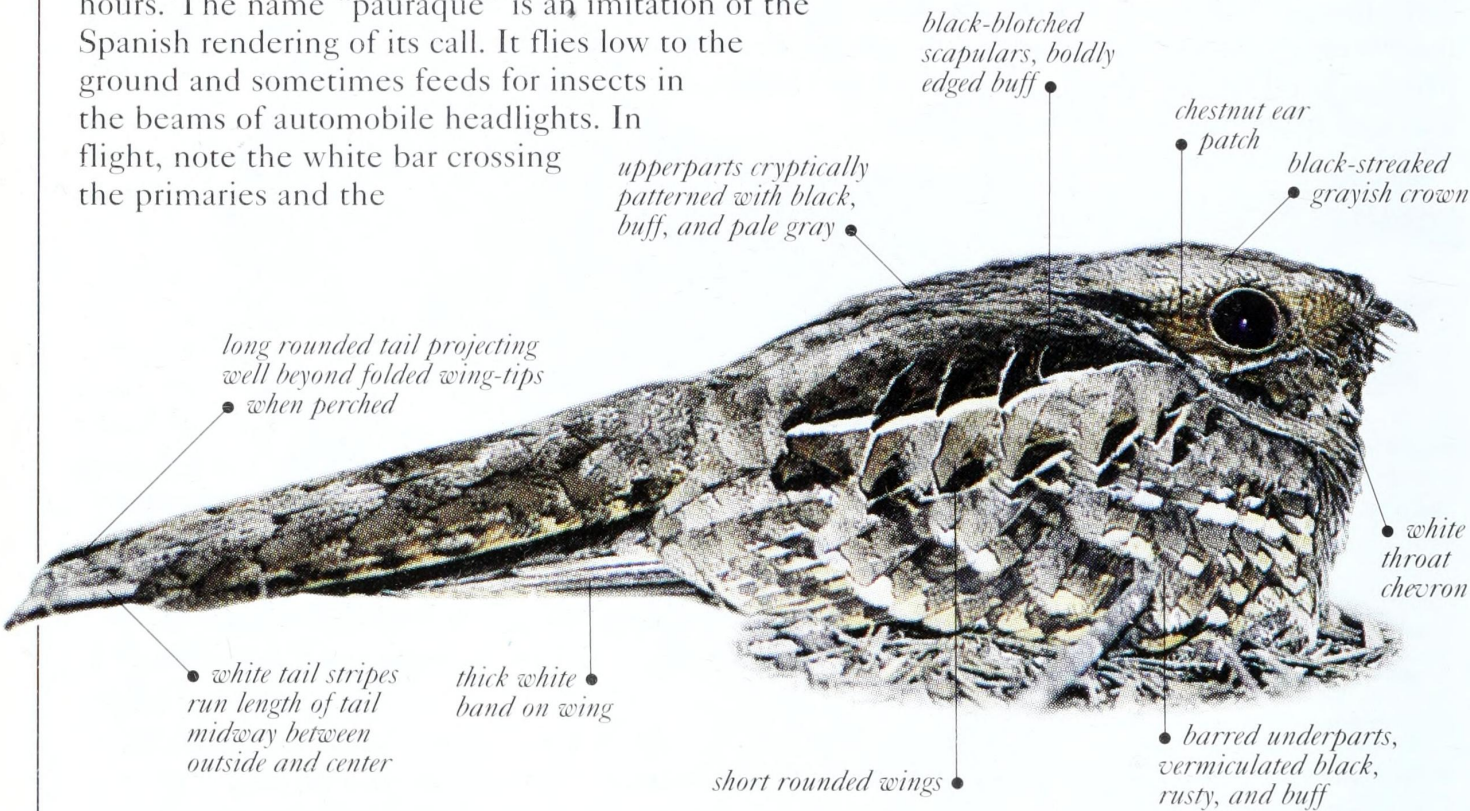
Plumage Sexes similar	Habitat 	Migration Migratory	Weight Undetermined
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DATE _____ TIME _____ LOCATION _____

Family CAPRIMULGIDAE	Species <i>Nyctidromus albicollis</i>	Length 10–11 inches	Wingspan 21–23 inches
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COMMON PAURAUQUE

A primarily tropical nightjar that reaches the northern limit of its range in south Texas, the Common Pauaque is very busy at night when it can be heard singing for hours. The name “pauaque” is an imitation of the Spanish rendering of its call. It flies low to the ground and sometimes feeds for insects in the beams of automobile headlights. In flight, note the white bar crossing the primaries and the



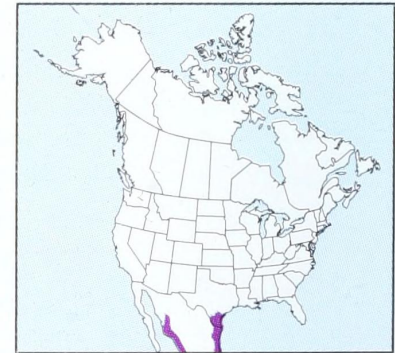
white tail patches on the long rounded tail. The female resembles the male but with a pale buff to cinnamon bar on the primaries and buffy tail patches on just the outside tip of the tail. Easily overlooked when not calling. On the daytime ground roost the camouflaged birds are almost invisible against the dead leaf background until flushed.

- **SONG** Call is a slightly burry low *purrr* or a high *wheer*. Song is a loud whistled *puc, puc, puc, puc p'weeEER*, sounding like *who-who-who-are-you?*
- **BEHAVIOR** Solitary. Crepuscular and nocturnal. Sings most often on moonlit nights. Perches low or hunts from ground for insects, then catches in flight. Eats a variety of flying insects. Typically flies close to ground. Roosts on ground during day.
- **BREEDING** Monogamous. Solitary.

Similar Birds



COMMON NIGHTHAWK
LESSER NIGHTHAWK
Long, pointed wings;
long, notched tail;
voices differ.



Flight Pattern



Flies low on slowly beating wings; darts erratically, changing courses; buoyant.

- **NESTING** Incubation estimated at 19–20 days by both sexes. Young semiprecocial; fed by both sexes. Age at first flight unknown. 1–2 broods per year.
- **POPULATION** Common in south Texas and the tropics.

Nest Identification

Shape

Location

No nesting materials • on bare ground • 2 buff to pale pink eggs, marked with fine reddish brown dots; elliptical-oval, 1.2 inches long.

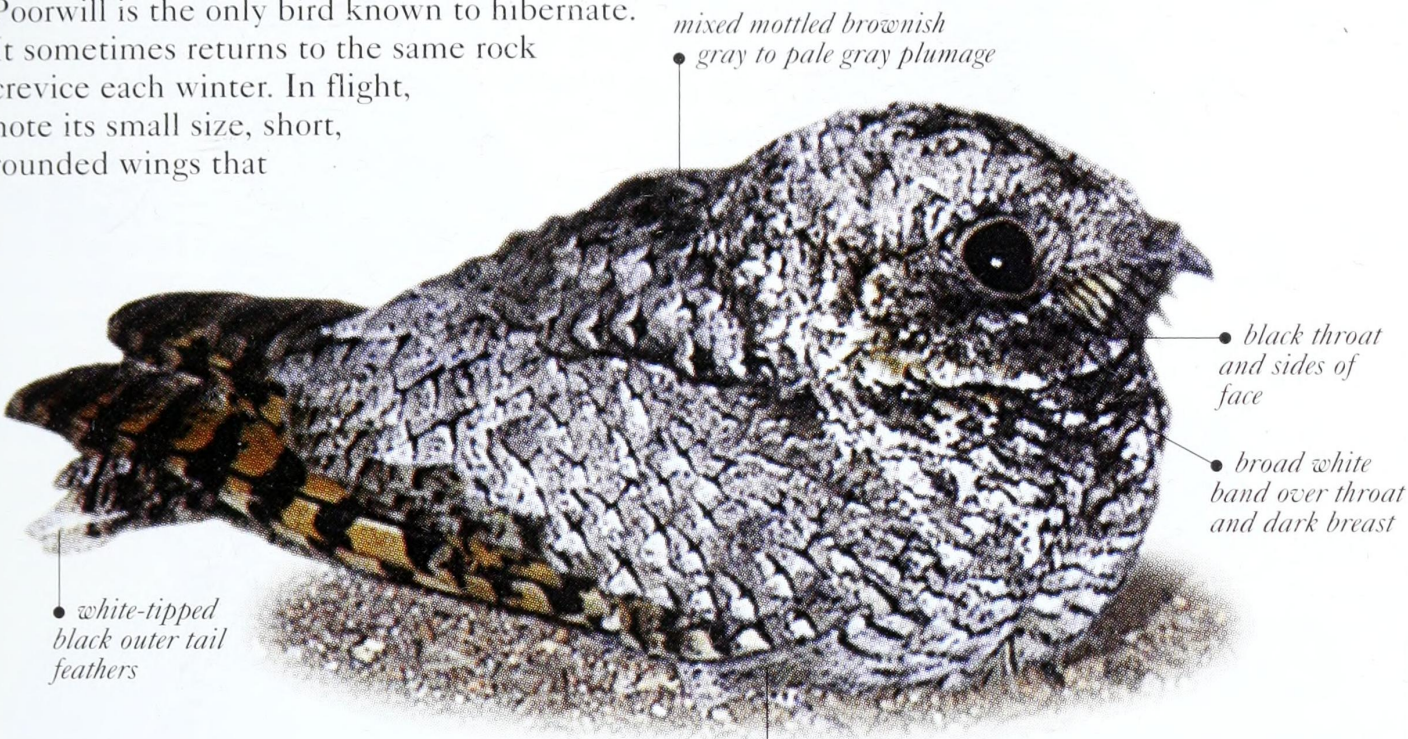
Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 1.8 ounces
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DATE _____ TIME _____ LOCATION _____

Family	CAPRIMULGIDAE	Species	<i>Phalaenoptilus nuttallii</i>	Length	7–8 inches	Wingspan	11–13 inches
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COMMON POORWILL

The smallest of the North American nightjars, this bird is the western counterpart of the eastern Whip-poor-will. It primarily feeds at night. Though all but its southernmost population migrates, the Common Poorwill is the only bird known to hibernate. It sometimes returns to the same rock crevice each winter. In flight, note its small size, short, rounded wings that



lack white patches, and the rounded tail with white tail corners. Male and female are similar, but the male has a larger bolder patch on its tail. This bird is more often heard than seen.

- **SONG** Has cry of *poor-will* or *poor-willy* or *poor-willow*, repeated 30–40 times per minute.
- **BEHAVIOR** Solitary. Nocturnal. During day, roosts hidden on ground in shrubs and grasses. Flies close to the ground at night searching for food or sits on ground watching for prey. Eats night-flying moths and other insects. Birds have been found in a state of hibernation during extremely cold weather.
- **BREEDING** Monogamous. Solitary.

Flight Pattern

Flits on silent wings with quick shallow wing beats.

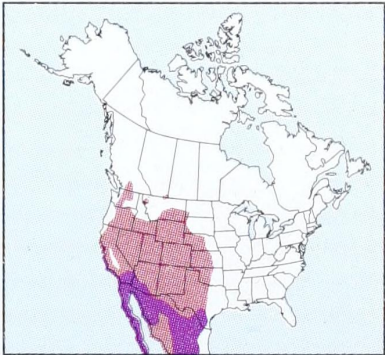
Nest Identification

Shape Location

- **NESTING** Incubation 20–21 days by both sexes. Young semiprecocial; fed by both sexes; first flight at 20–23 days. 1–2 broods per year.
- **POPULATION** Fairly common; widespread, stable.

Similar Birds

WHIP-POOR-WILL
Locally in southwest
• larger longer tail with large white corners (male) or buffy tips (female); voice differs.



On bare soil, pebbles, or atop small pile of leaves, usually shaded by bush or grasses • 2 white to pinkish white eggs, sometimes spotted or mottled with violet; oval to elliptical oval, 1.0 x 0.8 inches.

Plumage	Sexes similar	Habitat		Migration	Migratory	Weight	1.8 ounces
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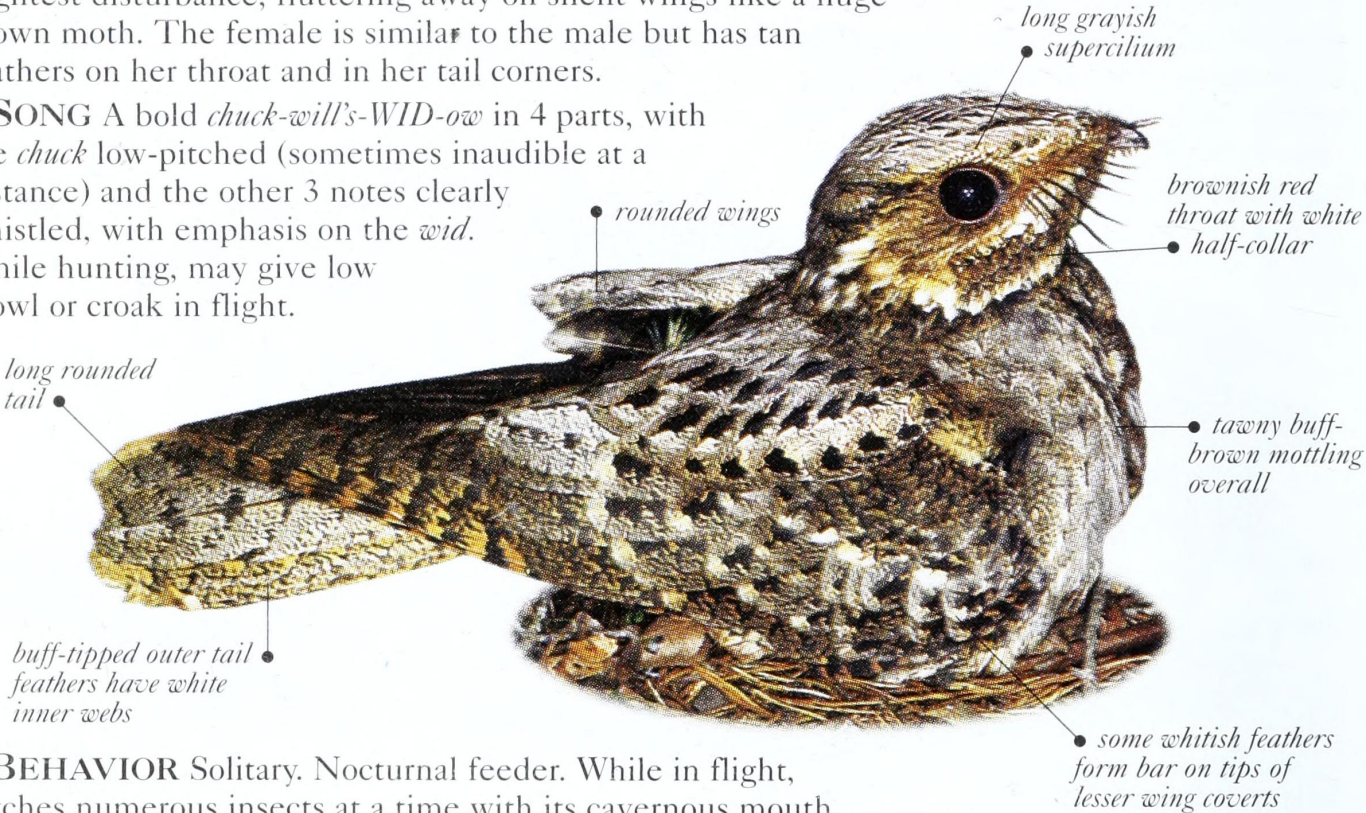
DATE _____ TIME _____ LOCATION _____

Family	CAPRIMULGIDAE	Species	Caprimulgus carolinensis	Length	11–13 inches	Wingspan	24.5–25.5 inches
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CHUCK-WILL’S-WIDOW

True to its name, this bird can be heard singing *chuck-will’s-widow* continuously in the early evening on a summer’s night in the rural South. The largest North American nightjar is shy and will often flush at the slightest disturbance, fluttering away on silent wings like a huge brown moth. The female is similar to the male but has tan feathers on her throat and in her tail corners.

• **SONG** A bold *chuck-will’s-WID-ow* in 4 parts, with the *chuck* low-pitched (sometimes inaudible at a distance) and the other 3 notes clearly whistled, with emphasis on the *wid*. While hunting, may give low growl or croak in flight.



• **BEHAVIOR** Solitary. Nocturnal feeder. While in flight, catches numerous insects at a time with its cavernous mouth, which has a 2-inch gap and rictal bristles in its corners to aid in trapping prey. Eats mainly insects and an occasional small bird, which it swallows whole. Roosts like other nightjars, perched parallel to the limb or on the ground, where its cryptic plumage makes it all but impossible to see unless it moves. Roosts on the same perch daily.

• **BREEDING** Monogamous. Solitary nester.

• **NESTING** Incubation 20–24 days by female, who will move eggs if nest is disturbed. Semiprecocial young brooded by female; remain in nest approximately 17 days, fed by female. Female tends young until independent. 1 brood per year.

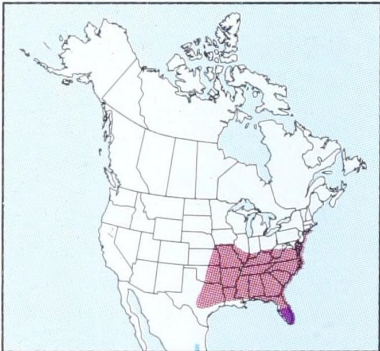
• **POPULATION** Fairly common in pine-oak and live-oak woodlands, as well as in deciduous forests.

• **CONSERVATION** Neotropical migrant. May be declining due to habitat loss from lack of proper forest management.

Similar Birds



WHIP-POOR-WILL
Smaller; grayer; rufous bar on shoulder; voice differs • male has more white in tail and white crescent at lower edge of black throat • female has dark brown throat, buffy necklace, and pale buff tips to outer tail feathers.



Flight Pattern



Easy buoyant silent flight with flicking wing beats.

Nest Identification

Shape

Location

No nest materials • on ground atop dried leaves, shaded by dense trees or ground cover • 2 shiny pinkish cream or buff eggs, with brown, lavender, or gray markings; oval to elliptical, 1.4 x 1.0 inches.

Plumage	Sexes similar	Habitat		Migration	Migratory	Weight	4.2 ounces
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DATE _____ TIME _____ LOCATION _____

Family CAPRIMULGIDAE

Species *Caprimulgus vociferus*

Length 9–10 inches

Wingspan 16–19.5 inches

WHIP-POOR-WILL

The Whip-poor-will is best located and identified by its distinctive calls. It is nearly impossible to see because it tends to sit on the ground or lengthwise on a branch, and its pattern closely matches the leaf litter of the wood lots it frequents. “Whips” have rounded wings that when folded do not reach to the tip of the tail. Males are similar to females but the throat is bordered with white and the tail has large white patches.

- **SONG** A loud, clear *whip-poor-will* often repeated at night in eastern birds; call is more coarse among southwestern birds.

long tail with buff tips

white necklace

large eyes

dark throat with a buff border

FEMALE

- **BEHAVIOR** Incubating or perched birds often allow a close approach. They fly close to the ground at night and catch large flying insects, especially medium to large moths. Their large eyes, like those of other creatures active at night, reflect light with a red eye-shine. In rural areas, birds often sit along dirt or gravel roads in the open at night.
- **BREEDING** Monogamous.
- **NESTING** Incubation 19–20 days by female. Semiprecocial young stay in nest 20 days. Fed by both sexes. 1–2 broods per year.

Flight Pattern



Erratic mothlike flight. Male hovers during display, with slow smooth flight.

Nest Identification

Shape  Location 

- **POPULATION** Uncommon. Has declined in the East in recent decades because of habitat loss caused by forest fragmentation and development.
- **CONSERVATION** Species federally protected.

Eggs laid on flat ground on leaf litter • 2 whitish eggs marked with brown and gray overlaid with brown, olive, and lavender; 1.2 inches long.

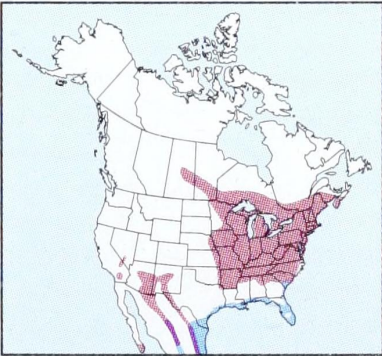
Similar Birds



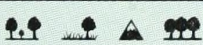
CHUCK-WILL'S WIDOW
Lacks wing bars and black wing and tail
• breeds throughout much of North, Southwest.



COMMON NIGHTHAWK
Yellow undertail coverts
• ranges in Northwest, Rockies, and much of the Southwest.



Plumage Sexes similar

Habitat 

Migration Most migrate

Weight 2.0 ounces

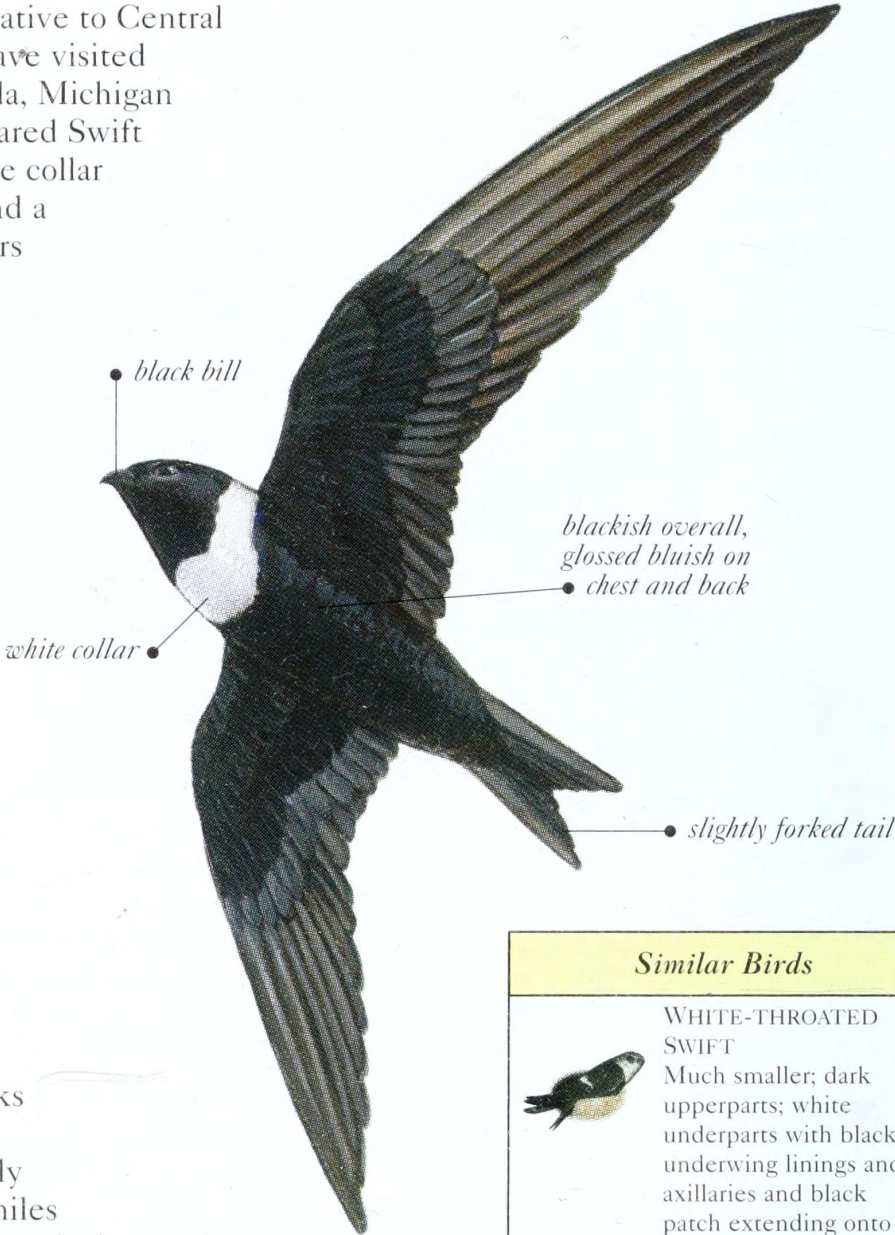
DATE _____ TIME _____ LOCATION _____

Family APODIDAE	Species <i>Streptoprocne zonaris</i>	Length 8.75 inches	Wingspan 19–21 inches
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WHITE-COLLARED SWIFT

This strong fast-flying bird soars in flocks over long distances, frequently feeding high in the sky with other swifts on swarms of insects just in front of rainstorms. A tropical species native to Central and South America, vagrants have visited North America in Texas, Florida, Michigan and California. The White-collared Swift is a very large swift with a white collar band that encircles the neck and a slightly notched tail that appears round or square when fully spread. Legs and feet are black. It soars with wings arched downward (the anhedral position). Juveniles are duller and sootier overall, with a much reduced or absent collar, grayish-edged belly feathers, and a reduced tail notch.

- **SONG** Loud screeching *chee-chee-chee*. Also much chattering. Often heard high overhead before it is seen.
- **BEHAVIOR** Gregarious. Catches food in flight; often high in the air column. Eats flying insects including ants, beetles, wasps, and bees. When foraging it circles and dives, seeming to barely flap wings. Roosts and nests in flocks of 50 or more, in caves or wet crevices in mountains, especially near waterfalls. Ranges many miles daily to feed, returning to roost at dusk.
- **BREEDING** Monogamous. Colonial.



Similar Birds



WHITE-THROATED SWIFT
Much smaller; dark upperparts; white underparts with black underwing linings and axillaries and black patch extending onto sides; long forked tail.

Flight Pattern



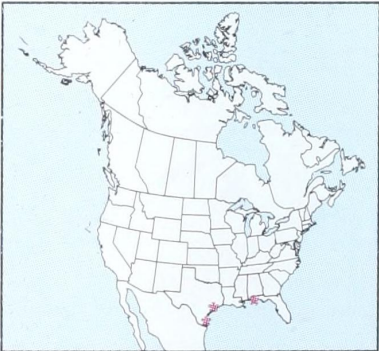
Strong fast powerful flight. Alternates rapid shallow wing beats with long glides. Soars on thermals and updrafts.

Nest Identification

Shape 

Location  

- **NESTING** Incubation 16–28 days by both sexes (periods of cold weather prolong incubation). Altricial young stay in nest 45–60 days, fed by both sexes. 1 brood per year.
- **POPULATION** Accidental in North America.



Plumage Sexes similar	Habitat     	Migration Nonmigratory	Weight 3.5 ounces
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DATE _____ TIME _____ LOCATION _____

Family APODIDAE	Species <i>Chaetura pelagica</i>	Length 5.5 inches	Wingspan 12–12.75 inches
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CHIMNEY SWIFT

Often referred to as “a cigar with wings” because of its flight silhouette, this is the only swift normally found in eastern North America. Named for its habit of building nests inside chimneys or air shafts, it uses its glue-like saliva to attach its nest to the brick or concrete and to bind together the individual sticks. Adult birds feed their young until they are old enough to fly out of the chimney. In fall migration, hundreds may swirl above a large chimney at dusk before dropping into it to roost for the night. This bird has become so adapted to life in man-made structures that it now is a common summer species sweeping the skies over our towns, cities, and suburbs.

- **SONG** Bold chattering; rapid twittering calls cascade down from above.
- **BEHAVIOR** Gregarious. Eats flying insects and ballooning spiders in the air column. Catches food while flying. Roosted and nested in hollow trees before Europeans settled North America; now uses chimneys and air shafts. Almost always seen on the wing. Aerial courtship and mating with courtship V-ing display – pairs flying with wings held in extreme dihedral V above their backs.
- **BREEDING** Monogamous. Solitary or colonial. Sometimes with helpers at the nest.
- **NESTING** Incubation 19–21 days by both sexes, sometimes with the aid of helpers. Young altricial; stay in nest 30 days, fed by both sexes, but female feeds more. 1 brood per year.
- **POPULATION** Fairly common to common in range. Has increased dramatically with the abundance of artificial nesting sites created by European settlement of North America. Rare in southern California.

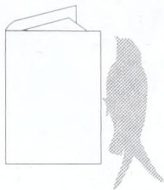
blackish gray bill

blackish gray legs and feet

short cigar-shaped body

sooty gray overall

long narrow curved wings



Similar Birds



VAUX'S SWIFT
Smaller; shorter wings; paler underparts and rump; voice differs; soars less frequently.

Flight Pattern



Rapid batlike flight on stiff swept-back wings alternates with long sweeping glides. Darts erratically. Soars on thermal drafts.

Nest Identification

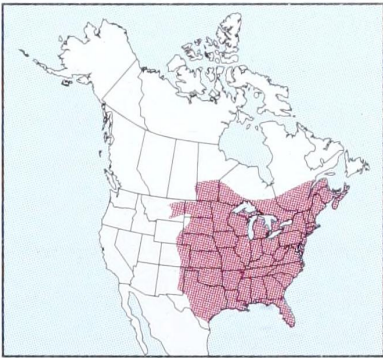
Shape



Location



Half saucer of sticks and saliva • hollow interior of tree, chimney, air shaft, vertical pipe, silo, barn, open well or cistern, fruit cellar, or side of building • nest built by both sexes • 2–7 white eggs, may be nest stained; long oval to cylindrical, 0.8 x 0.5 inches.



Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.8 ounce
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DATE _____ TIME _____ LOCATION _____

Family APODIDAE	Species <i>Chaetura vauxi</i>	Length 4–4.5 inches	Wingspan 11.5 inches
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VAUX'S SWIFT

This small swift of the forested regions of the Northwest is similar in appearance and actions to the Chimney Swift, but their ranges do not overlap. Furthermore, this little swift soars much less frequently. Its sooty brown plumage is paler below, especially on the throat and upper breast, as well as on the grayish to brownish gray rump and uppertail coverts. This species has only recently begun to adapt to nesting in chimneys.

• **SONG** Often gives high thin chipping and twittering calls. In courtship flights it utters faint rapid twitter, *chip-chip-chewweet-chewweet*.

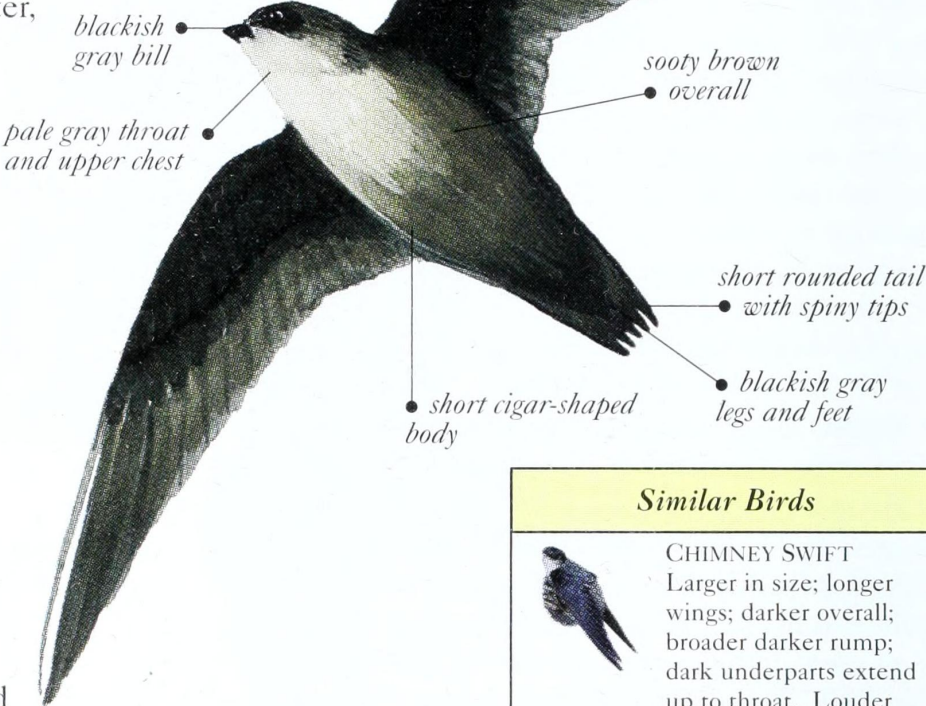
• **BEHAVIOR** Gregarious.

Singles, pairs, or flocks of 20 or more birds. Aerial. Catches insects in flight. Practices courtship and copulation while flying. Breaks off twigs for nesting materials with feet in midair. In the beginning of the breeding season courting birds display by flying with wings upraised in a V position. Frequently feeds over water, flying close to the surface, and often flies rapidly and fairly low over foothills and highlands; may also fly at great heights. Frequents burned-over forest areas, where it nests in hollow snags. Like other swifts it cannot perch but clings to vertical walls to roost at night.

• **BREEDING** Monogamous. Loosely colonial.

• **NESTING** Incubation about 18–20 days by both sexes. Altricial young remain in nest 20–28 days, fed by both sexes. 1 brood per year.

• **POPULATION** Fairly common in woodlands near water. It is rare in winter in southern California. Casual along Gulf Coast.



Similar Birds

	CHIMNEY SWIFT Larger in size; longer wings; darker overall; broader darker rump; dark underparts extend up to throat. Louder chattering call; greater tendency to soar; different geographical range.
	BLACK SWIFT Larger; darker overall; slightly notched tail; silvery white forehead; soars frequently.

Flight Pattern



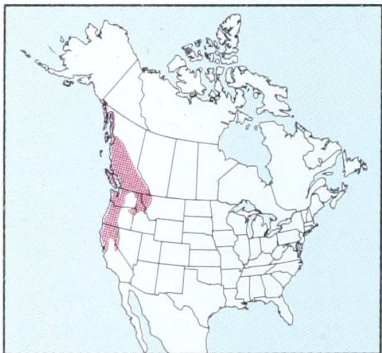
Fast low flight with bursts of rapid fluttery wing beats, alternating with glides for short periods.

Nest Identification

Shape 	Location  
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• CONSERVATION

Neotropical migrant, wintering from central Mexico to northern South America. Vulnerable to old-growth timber harvesting and the removal of large snags from forest.



Twigs and conifer pine needles held together with saliva to inside wall of hollow tree, hollow snag, and occasionally a chimney • built by both sexes • 3–6 white eggs, may become nest stained; long oval to cylindrical, 0.7 x 0.4 inches.

Plumage Sexes similar	Habitat    	Migration Migratory	Weight 0.6 ounce
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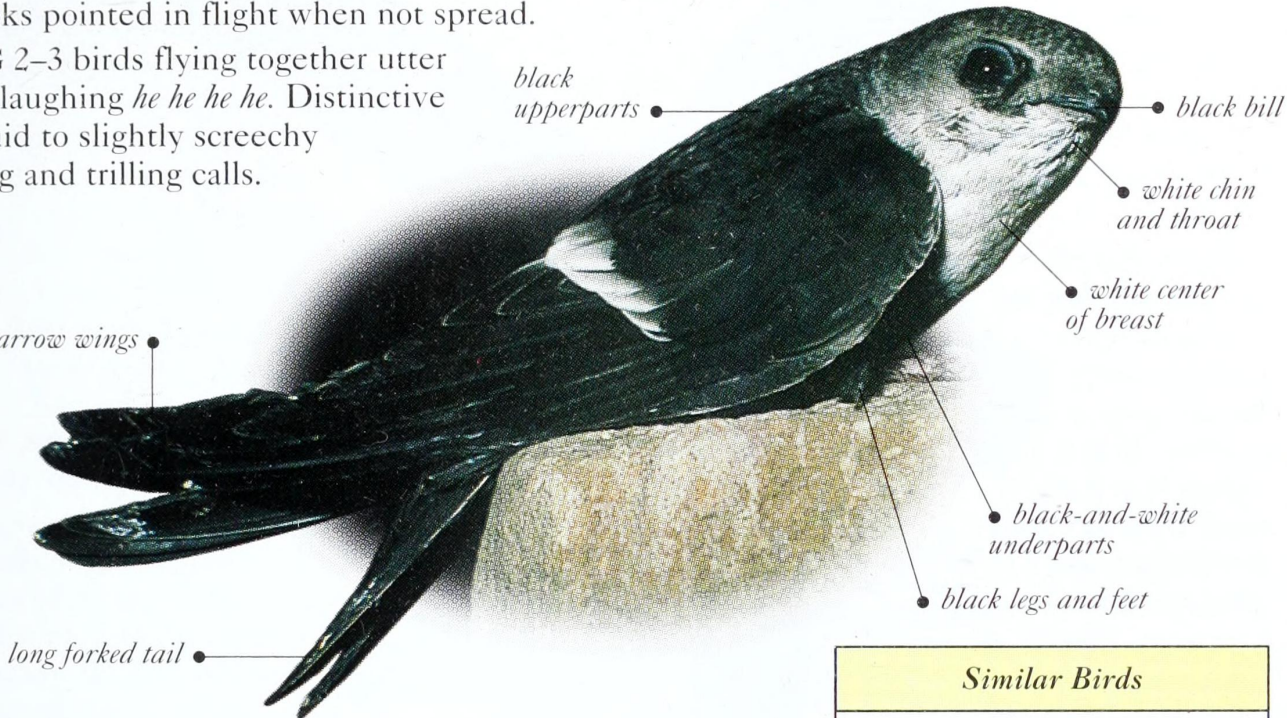
DATE _____ TIME _____ LOCATION _____

Family APODIDAE	Species <i>Aeronautes saxatalis</i>	Length 6–7 inches	Wingspan 13–14 inches
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WHITE-THROATED SWIFT

Possibly the most rapid flying North American bird, the White-throated Swift has been seen fleeing from Peregrine Falcons at estimated speeds of more than 200 mph. This darting black-and-white swift is associated with steep cliff faces in mountain canyons and on the coast; recently it has started to nest under freeway overpasses and bridges. In flight from below it shows white underparts from the chin to midline at the end of the belly, a large white oval patch on each flank that is visible from above and below, and a long, forked tail that often looks pointed in flight when not spread.

• **SONG** 2–3 birds flying together utter piercing laughing *he he he he*. Distinctive high liquid to slightly screechy twittering and trilling calls.



- **BEHAVIOR** Gregarious. Aerial. Eats wide variety of flying insects and ballooning spiders. Catches food while in flight with the cavernous gaping mouth that is characteristic of all swifts.
- **BREEDING** Monogamous. Colonial. Courtship is performed entirely in flight; birds copulate in air, with male and female coming together from opposite directions, locking on, and pinwheeling downward through the air, sometimes for more than 500 feet.
- **NESTING** Incubation 19–21 days by both sexes. Young altricial; leave nest at approximately 30 days, fed by both sexes.

Flight Pattern



Swift flight, alternating rapid shallow wing beats with long glides. Soars and glides at high speeds. Darts, swoops, and abruptly changes direction.

Nest Identification

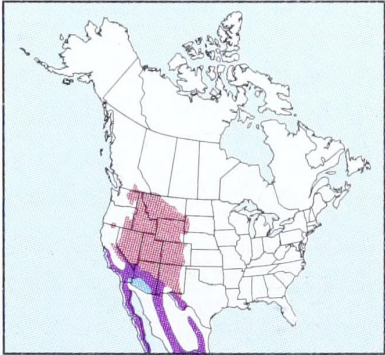
Shape  Location   

Sometimes flimsy or well-rounded cup of feathers and grasses cemented together with saliva and glued to wall of deep crack or crevice • built by both sexes • 3–6 white eggs; long-oval to cylindrical, 0.8 x 0.5 inches.

Similar Birds



VIOLET-GREEN SWALLOW
Shorter broader wings; entirely white underparts; solid white flank patches extend onto sides of rump; metallic green upperparts with purple gloss; slightly notched tail; slower more buoyant flight.



Plumage Sexes similar	Habitat   	Migration Migratory	Weight 1.1 ounces
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DATE _____ TIME _____ LOCATION _____

Family APODIDAE	Species <i>Tachornis phoenicobia</i>	Length 4-4.5 inches	Wingspan 11.5 inches
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ANTILLEAN PALM-SWIFT

This little swift, with its distinctive black-and-white markings, is at home in the Caribbean, where it hunts flying insects with its snaky spiraling batlike flight over lowland Cuba, the Isle of Pines, Hispaniola, and Jamaica. In the summer of 1972 birders in the Florida Keys observed a pair of Antillean Palm-Swifts in the skies over Key West. In flight this bird's white rump and white underparts contrast with its black wings and black upperparts. Juveniles resemble adults but have buffy underparts.

• **SONG** A weak twittering.

• **BEHAVIOR**

Gregarious. Forms small groups to medium-sized flocks. Breeds year-round in colonies in the dead fronds that hang from Thatch Palms and other palm species. Diet consists primarily of insects that it takes from the air columns or from the surface of water. The first indication of this bird's presence may be the twittering vocalizations from high above human habitations, cane fields, dry swamps, and golf courses.

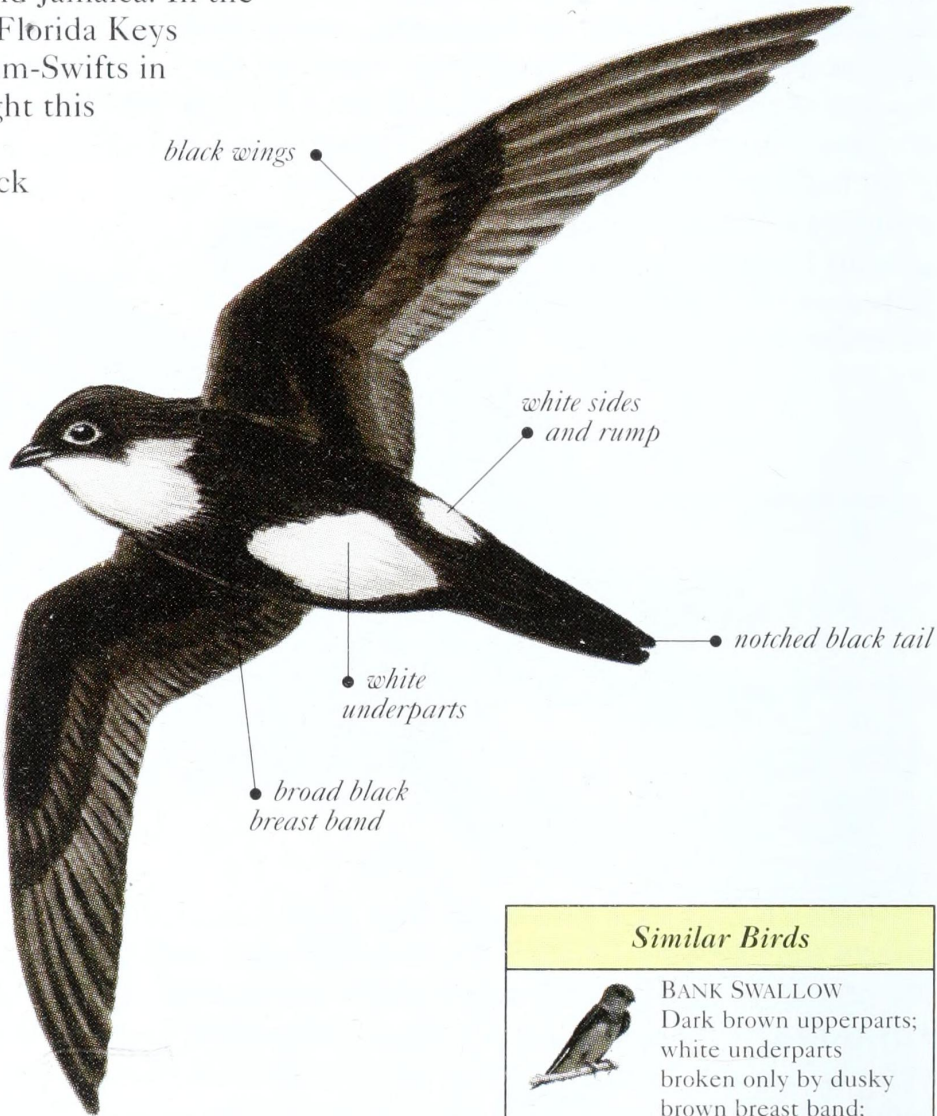
• **BREEDING** Colonial. Highly gregarious.

• **NESTING** Nesting biology of this bird poorly known.

Estimated incubation period by both sexes is 18-21 days.

Altricial young are brooded by female; remain in nest estimated 20-28 days, fed by both sexes. 1-2 broods per year.

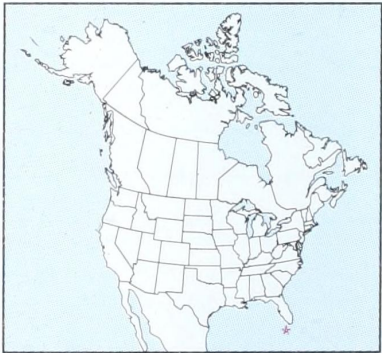
• **POPULATION** Fairly common to common in native range in Caribbean. Accidental in the US in Florida Keys.



Similar Birds



BANK SWALLOW
Dark brown upperparts; white underparts broken only by dusky brown breast band; slightly notched dark brown tail; lacks white rump; slower and more graceful flight.



Flight Pattern



Rapid batlike flight on stiff rapidly beating swept-back wings, alternating with gliding flight.

Nest Identification

Shape 

Location   

Soft materials cemented together with saliva • situated in hollow palm spathe, attached to the underside of a drooping frond, or in a crevice or man-made structure • entrance near bottom • built by both sexes • 3-5 white eggs; long oval to cylindrical, 0.7 x 0.4 inches.

Plumage Sexes similar	Habitat 	Migration Nonmigratory	Weight 0.3 ounce
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DATE _____ TIME _____ LOCATION _____

Family TROCHILIDAE	Species <i>Colibri thalassinus</i>	Length 4 inches	Wingspan 5–6 inches
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GREEN VIOLET-EAR

This large dark hummingbird with shiny dark green upperparts and bluish green underparts is often noisy and first attracts attention when it is perched and giving its loud *chi-it, chi-I-it* notes. It vocalizes frequently and sometimes persistently. Generally associated with mountain forests, forest clearings, and the forest edge, it is common from Central Mexico southward into northern South America. However, vagrant individuals may show up almost anywhere, and there are numerous records from the eastern US and as far north as Alberta and Ontario, Canada. The blue-violet ear patch and large spot on the chest are difficult to see in some light, and often the dark green of the body appears black in shadow or strong backlighting. The broad dark blue tail is often fanned when the bird is hovering, revealing a wide subterminal black band. Females and juveniles are similar to males but appear more faded in color.

- **SONG** Repeated, loud *tsip-tsip*. Jerky, dry rattle *t'-iiiiissk, t'-iiiiissk, t'-iiiiissk*.
- **BEHAVIOR** Solitary. Feeds high to low in vegetation on nectar and insects. Often aggressive toward other hummers at feeding areas. Perches inside shrub or tree on exposed bare twigs and often calls from perch.
- **BREEDING** Solitary.
- **NESTING** Incubation 14–18 days by female. Altricial young fledge at about 18–23 days. 1–2 broods per year.

Flight Pattern



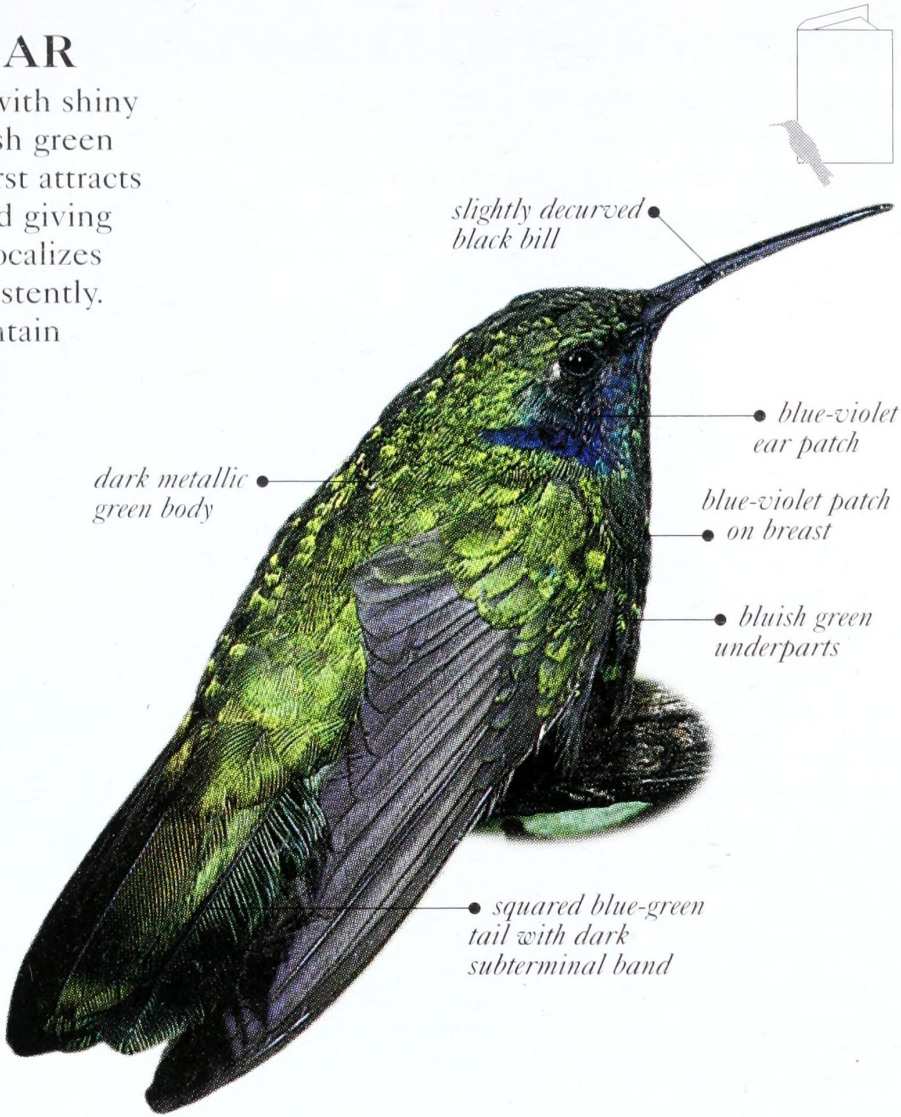
Direct and hovering flight with very rapid wing beats.

Nest Identification

Shape 

Location 

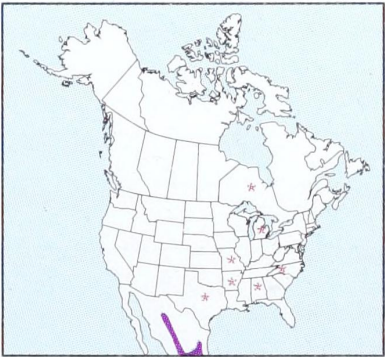
Down, dry grass blades, and mosses; bound with cobwebs • decorated with bits of moss and lichen • on drooping twig or rootlet at forest edge, streamside, or on overhanging road bank • built by female • 2 white eggs; elliptical with one end more pointed, 0.5 x 0.33 inches.



Similar Birds



BLUE-THROATED HUMMINGBIRD ♂
Larger; blue throat; white tips on tail feathers; 2 white lines on face.



Plumage Sexes similar	Habitat 	Migration Nonmigratory	Weight 0.2 ounce
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DATE _____ TIME _____ LOCATION _____

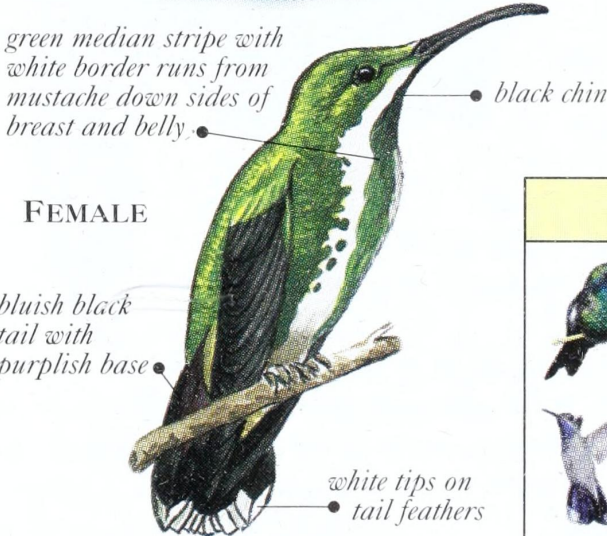
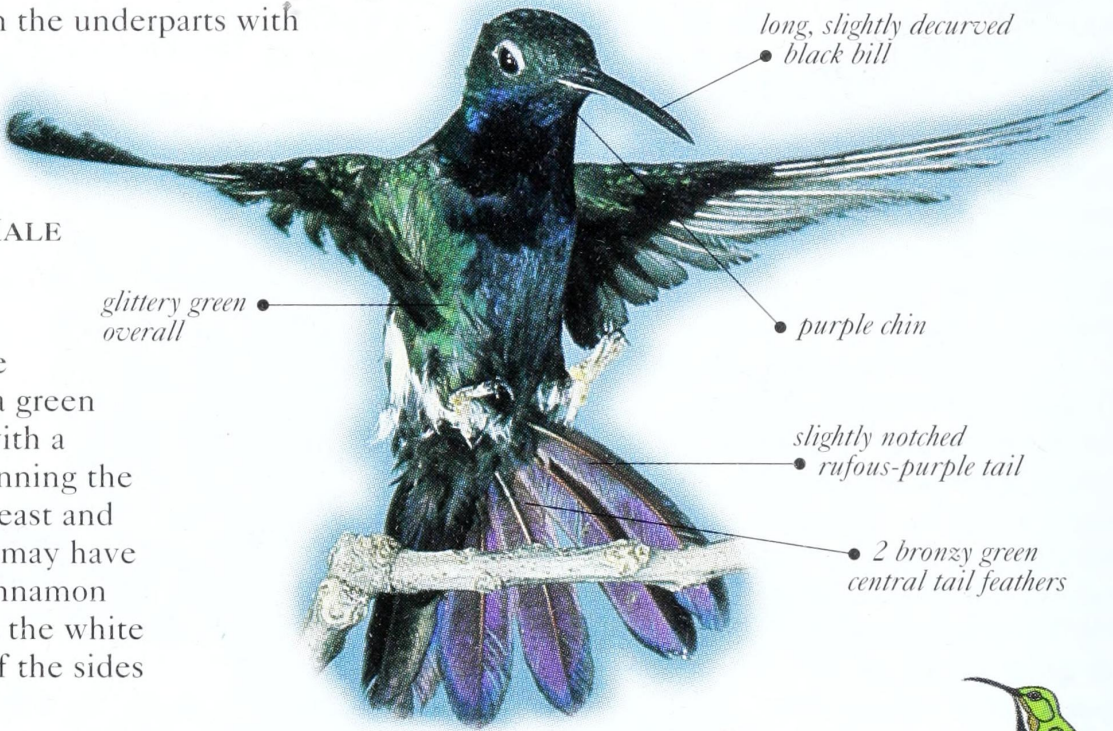
Family TROCHILIDAE	Species <i>Anthracothorax prevostii</i>	Length 4.75 inches	Wingspan 5–6 inches
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GREEN-BREASTED MANGO

This large glittery green hummingbird has a long, slightly decurved black bill and purple coloring in its tail. Juveniles and females show an unusual striped effect on the underparts with

a black chin line extending into a green median stripe with a white border running the length of the breast and belly. Juveniles may have an additional cinnamon border between the white and the green of the sides and flanks.

- **SONG** High thin *tsi, si-si-si, si-si-si*, and harsh chipping *tcik, tcik, tcik*.
- **BEHAVIOR** Feeds at high to low levels on nectar and takes many insects, sometimes hawking. Often perches and sings from an exposed bare limb at or near the top of a tree. Prefers open areas with few trees, shrubs, plantations, and gardens.
- **BREEDING** Solitary.
- **NESTING** Incubation 14–18 days by female. First flight at 18–23 days. 1 brood per year.



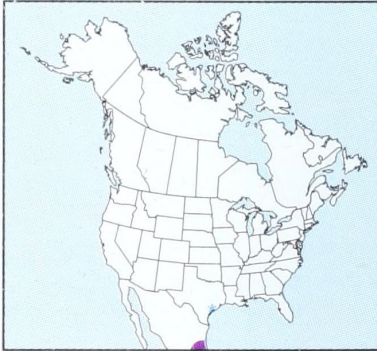
Similar Birds



BROAD-BILLED HUMMINGBIRD ♂
Red bill with black tip; notched blue-black tail.



BLUE-THROATED HUMMINGBIRD ♂
Larger; 2 white stripes on face; dark ear patch; grayish underparts.



Flight Pattern

Direct and hovering flight with very rapid wing beats.

Nest Identification

Shape

Location

- **POPULATION** Casual to rare. Local vagrants in southeastern Texas. Fairly common in Mexico.
- **FEEDERS** Attracted to feeders with sugar water.

Pale plant down, sparsely decorated with bark and lichen on outside • placed high near the tip of a bare branch on a leafless or sparsely leaved tree • built by female • 2 white eggs.

Plumage Sexes differ	Habitat	Migration Nonmigratory	Weight 0.2 ounce
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Family TROCHILIDAE

Species *Cynanthus latirostris*

Length 3–4 inches

Wingspan 5–6 inches

BROAD-BILLED HUMMINGBIRD

The Broad-billed Hummingbird frequents dry scrubby vegetation in the semidesert, low foothills, and canyons of the Southwest. The male's tail is blue-black and deeply forked, while that of the female is square-tipped to slightly forked with white-tipped outer tail feathers.

• **SONG** Chattering *je-dit* call is very similar to that of the Ruby-crowned Kinglet. In courtship male utters whining *zing*.

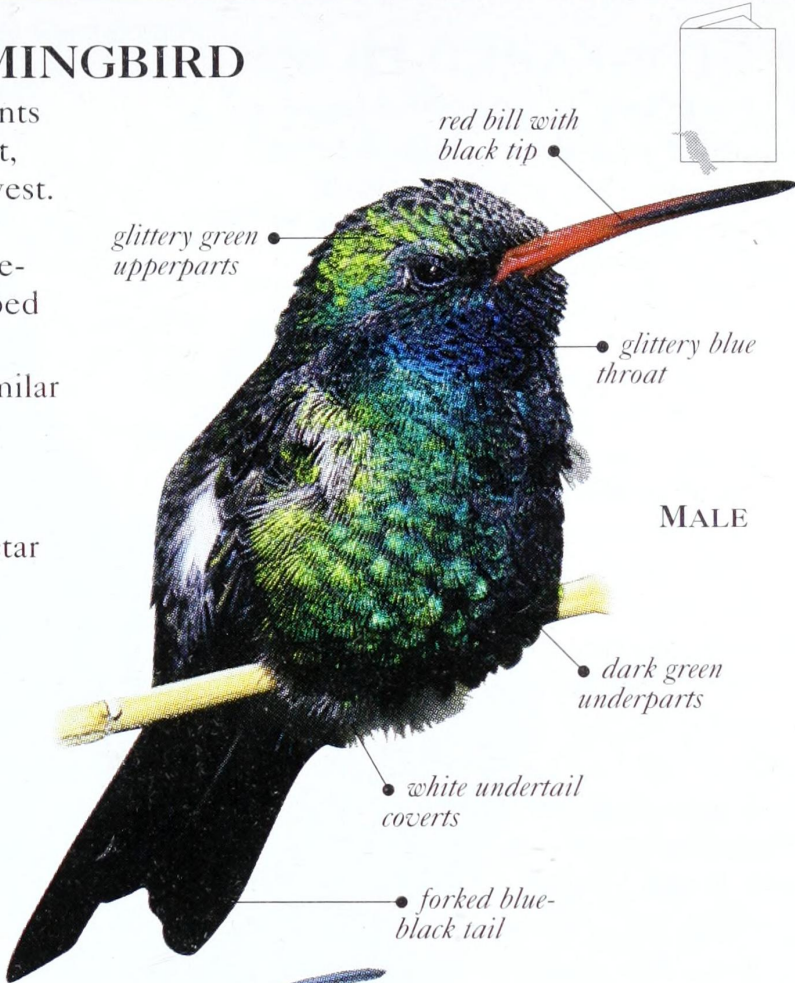
• **BEHAVIOR** Persistently wags and spreads tail when feeding. Feeds on nectar and insects taken high to low in vegetation. Often very aggressive at feeding stations toward other hummers, which it actively drives away with frequent power dives toward interlopers. Like other hummingbirds it is attracted to red and will often come seemingly from nowhere to inspect a person's red garments or red patterns and patches on clothing. Likewise, the red taillights and red reflectors on vehicles parked in its territory are also inspected as possible nectar sources.

• **BREEDING** Solitary.

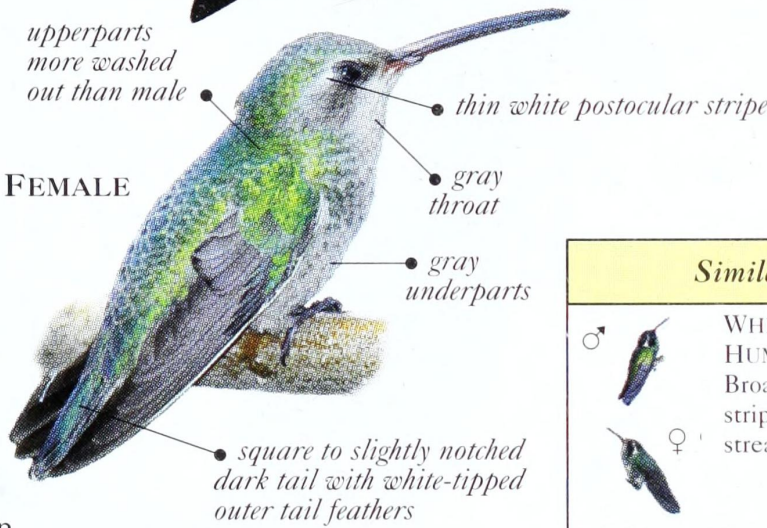
• **NESTING** Incubation about 2 weeks by female. Altricial young stay near nest for 15-20 days. Often 2 broods per year.

• **POPULATION** Common to fairly common in southeast Arizona, southwest New Mexico, and southwest Texas; rare to casual elsewhere; casual in winter. Sometimes very common in limited US range and parts of Mexico. No evidence of decline in number.

• **FEEDERS** Attracted to feeders with sugar water.



MALE



FEMALE

Similar Birds



WHITE-EARED HUMMINGBIRD
Broad white postocular stripe • female has streaked throat.

Flight Pattern

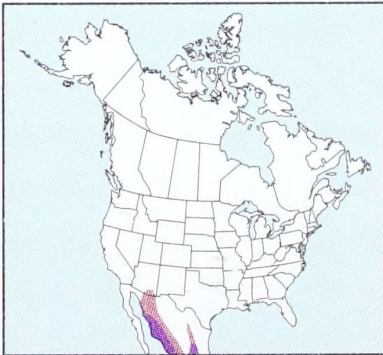
Direct and hovering flight with very rapid wing beats.

Nest Identification

Shape

Location

Grasses • lined with plant down, parts of leaves, and bark; no lichen on outer nest • on branch of small tree, stalk of vine, or shrub, usually 3–9 feet above ground • built by female • 2 white eggs; elliptical, 0.5 x 0.3 inches.



Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.1 ounce
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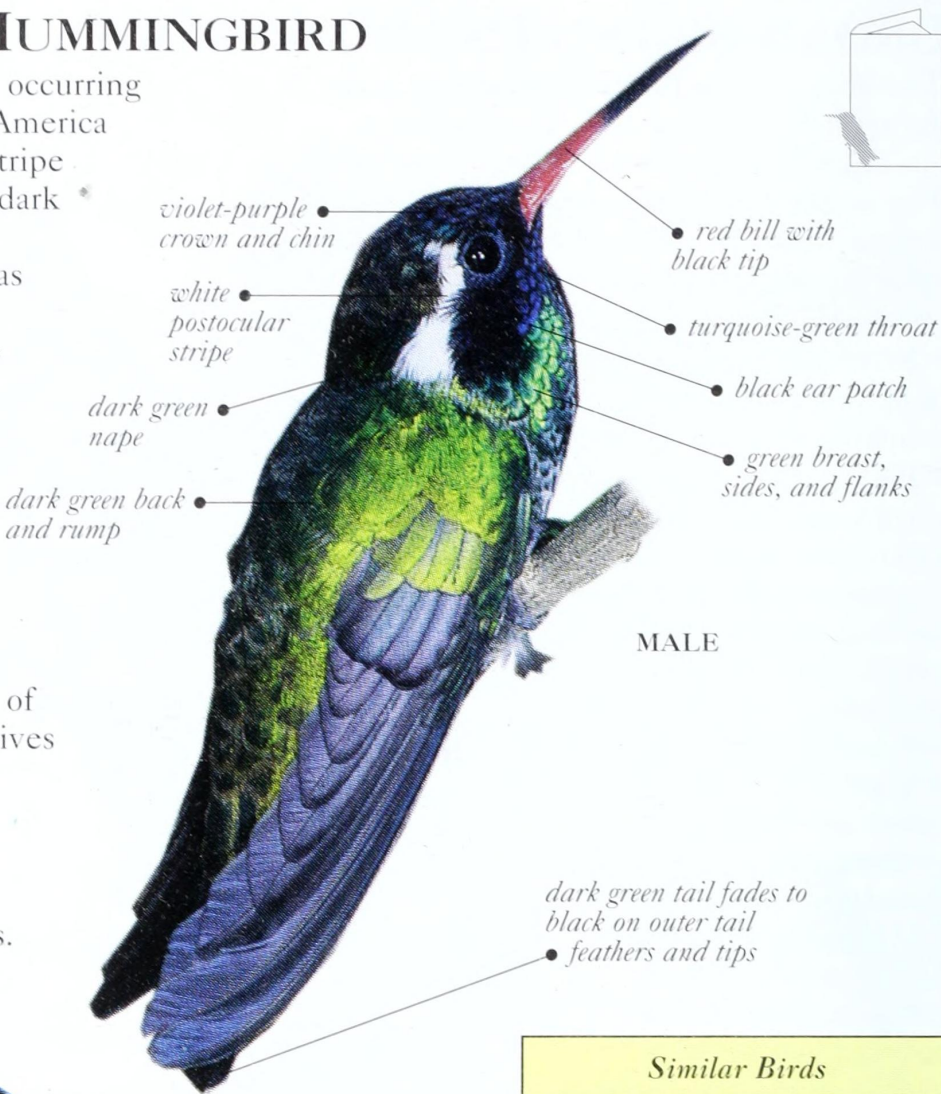
DATE _____ TIME _____ LOCATION _____

Family TROCHILIDAE	Species <i>Hylocharis leucotis</i>	Length 3–4 inches	Wingspan 4–5 inches
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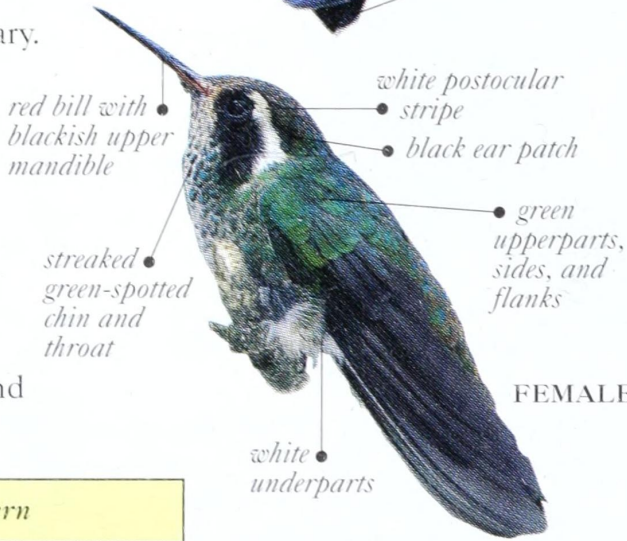
WHITE-EARED HUMMINGBIRD

The only small hummingbird occurring somewhat regularly in North America with a bold white postocular stripe that contrasts sharply with its dark head. The much larger Blue-throated Hummingbird also has similar head markings. The upperparts are dark green, the underparts are green and white, and the black-tipped red bill is rather short. It is principally a mountain species; look for it near low banks of flowers in clearings in open oak and oak-pine woodlands.

- **SONG** Display call is series of bell-like *tink tink* notes. Also gives bold, metallic twittering calls.
- **BEHAVIOR** Feeds and perches low to midlevel. Eats primarily nectar along with some small insects and spiders. Little is known of the biology of this small hummer in its limited US range.
- **BREEDING** Solitary.
- **NESTING**
Incubation 14–16 days by female. Young stay in nest 23–26 days.
- **POPULATION**
Casual to rare in limited and local US range. Widespread and locally very common



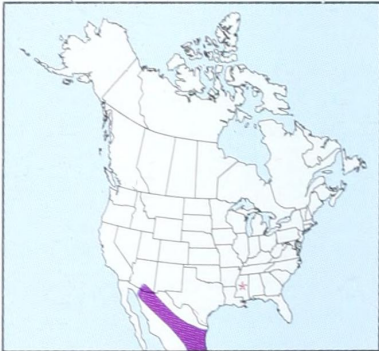
MALE



FEMALE

Similar Birds

- ♂ **BROAD-BILLED HUMMINGBIRD**
Male has forked blue-black tail; blue gorget; dark green underparts; green crown; small, thin postocular stripe
- ♀ **BROAD-BILLED HUMMINGBIRD**
female has uniformly gray to grayish white underparts; no streaking on chin or throat.



Flight Pattern

Direct and hovering flight with very rapid wing beats.

Nest Identification

Shape

Location

south of US. Could be vulnerable to major clearing of forest in mountains.

- **FEEDERS** Attracted to feeders with sugar water.

Plant down, moss, pine needles, and spiderwebs • lined with fine plant down and covered in lichens and moss • 5–20 feet above ground in shrub or tree, saddled on twig or in fork • built by female • 2 white eggs; elliptical, 0.05 x 0.03 inches.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.1 ounce
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Family TROCHILIDAE

Species *Amazilia yucatanensis*

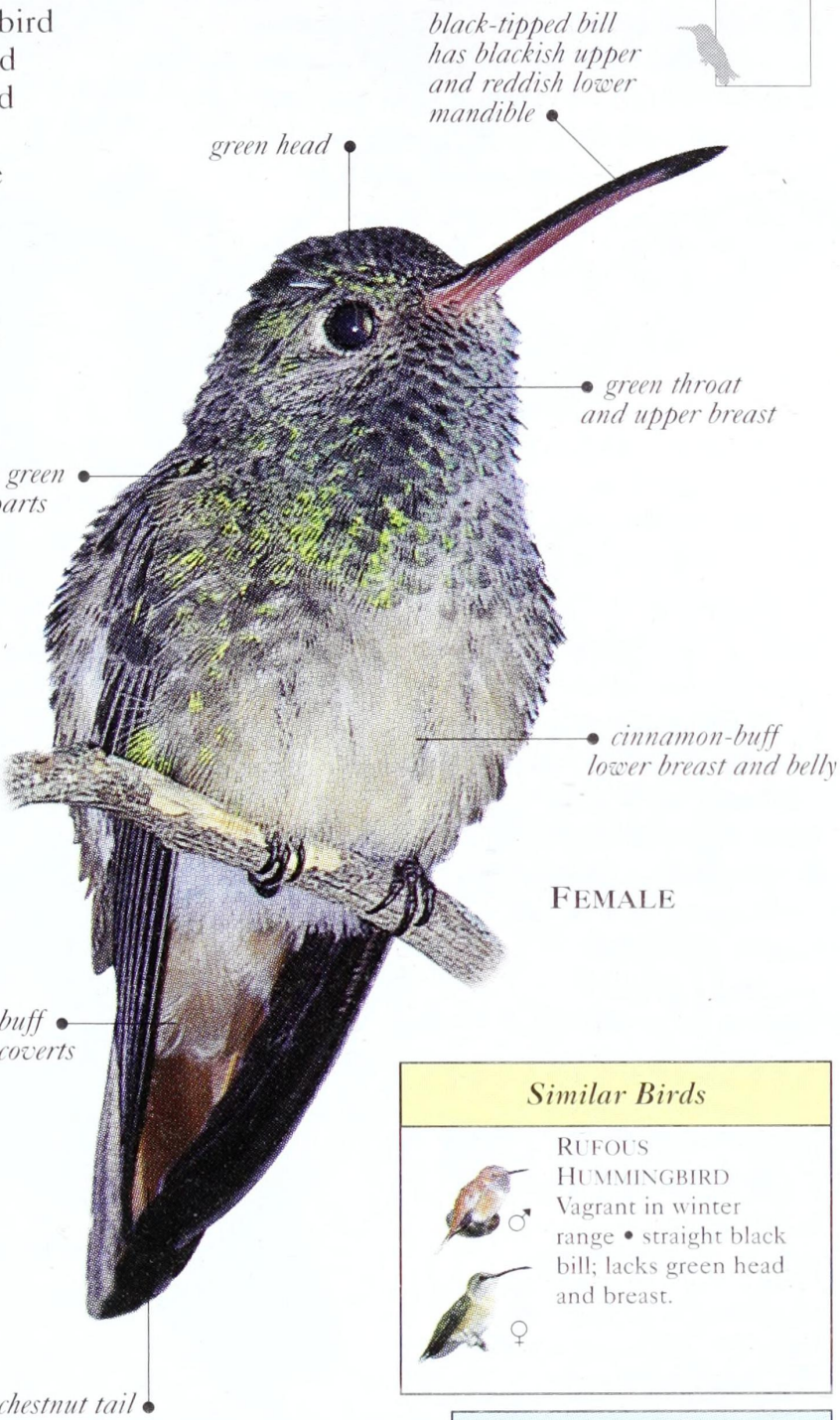
Length 4–5 inches

Wingspan 5.5 inches

BUFF-BELLIED HUMMINGBIRD

Generally the only greenish hummingbird with buff underparts seen in the United States, this bird often visits gardens and feeders in southeast Texas, where it resides all year. The Buff-bellied is the largest hummingbird normally seen in the East and the only one with a red bill. The bill is slightly decurved, and the adult male's is red with a black tip, while the adult female has a black-tipped bill with a blackish upper mandible and a reddish lower one. In flight the rufous base and sides of the tail are often very noticeable.

- **SONG** High-pitched repeated *siik*; also gives hard *chip*.
- **BEHAVIOR** Feeds primarily on nectar but takes some insects. Inhabits open woodlands, shrub-scrub areas, and citrus groves.
- **BREEDING** Solitary.
- **NESTING** Incubation about 14 days by female. Fed by female only. Young fledge at 18–22 days. Possibly 2 broods per year.
- **POPULATION** Common to fairly common in southeast Texas; rare to casual elsewhere in the Southeast. US breeding population confined to year-round residents in Texas.



FEMALE

Similar Birds



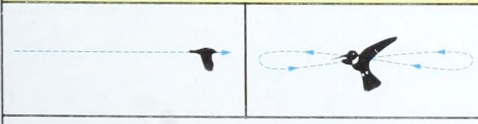
♂

RUFIOUS HUMMINGBIRD
Vagrant in winter range • straight black bill; lacks green head and breast.



♀

Flight Pattern



Direct and hovering flight with very rapid wing beats.

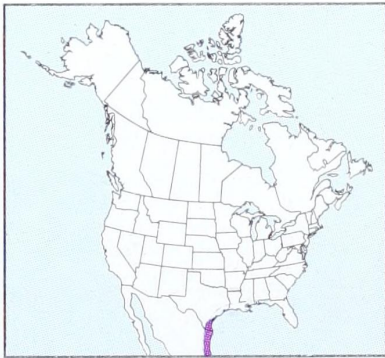
Nest Identification

Shape 

Location 

Decline in US in first half of 20th century due to conversion of habitat to agriculture.

- **FEEDERS** Attracted to feeders with sugar water.
- **CONSERVATION** Current population seems stable.



Plant fibers, fine stems, shreds of bark, and spiderwebs • lined with plant down; outside covered with lichens and flower petals • in large shrub or small tree, saddled on horizontal or drooping branch • built by female • 2 white eggs.

Plumage Sexes similar

Habitat   

Migration Nonmigratory

Weight 0.1 ounce

DATE _____ TIME _____ LOCATION _____

Family TROCHILIDAE	Species <i>Lampornis clemenciae</i>	Length 5–5.5 inches	Wingspan 7 inches
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BLUE-THROATED HUMMINGBIRD

One of the largest and most impressive hummingbirds in the southern United States is found in wooded canyons and mountains, especially along streams in southeastern Arizona, southwestern New Mexico, and western Texas. When hovering, it often fans its long, squared blue-black tail, which has large white tips.

• **SONG** Male’s call is bold, high-pitched, repetitive *seep* given while perched at mid-level in trees or in flight. This loud, monotonous squeak is often the first evidence of the bird’s presence.

• **BEHAVIOR** Dominant at feeders and feeding areas; easily drives away other hummingbirds. Is quick to investigate feeders; often they can be attracted to a campsite within hours by hanging red feeders. Also investigates anything red in the campsite or on hikers, including clothing, gear, and reflectors on vehicles. Feeds on nectar and insects at low to mid-level in vegetation.

• **BREEDING** Solitary.

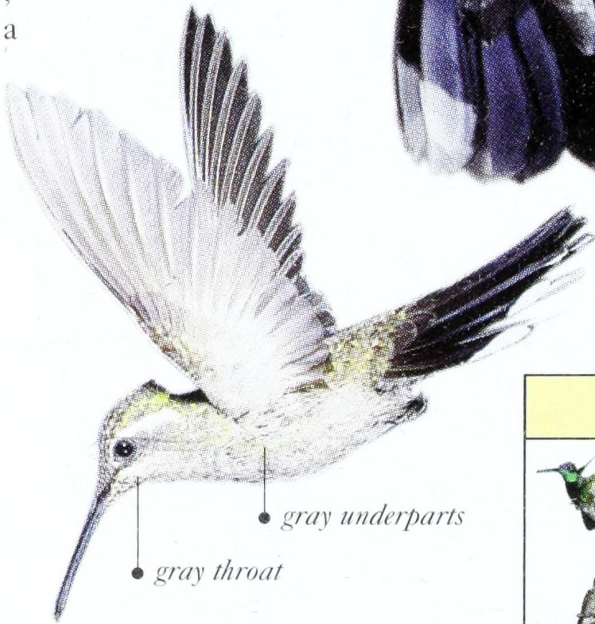
• **NESTING**
Incubation 17–18 days by female. Young stay in nest 24–29 days. Up to 3 broods per year.

• **POPULATION** Very restricted range in southwestern US; most birds found in Mexico. Fairly common in summer; rare to casual in winter. Accidental in southeastern US.

• **FEEDERS** Sugar water.
• **CONSERVATION** Vulnerable to loss of habitat in Mexican range.



MALE

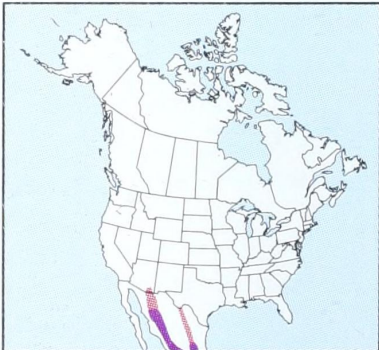


FEMALE

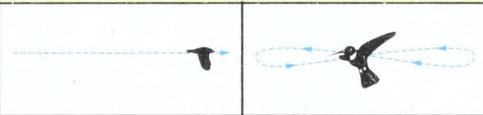
Similar Birds



MAGNIFICENT HUMMINGBIRD
Black body; notched tail lacks white-tipped feathers; glittering green throat; lacks white lines on face.



Flight Pattern



Swift, rapid direct flight. Extremely rapid wing beats when hovering.

Nest Identification



Plant down and moss; bound by spider’s silk with outer covering of moss • on stems of flowering plants and ferns; along streams; under eaves of houses, bridges, water towers; and inside buildings • 1–30 feet above ground; often sheltered from above • built by female • 2 white eggs.

Plumage Sexes differ	Habitat	Migration Some migrate	Weight 0.3 ounce
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DATE _____ TIME _____ LOCATION _____

Family TROCHILIDAE	Species <i>Eugenes fulgens</i>	Length 4.5–5.25 inches	Wingspan 7 inches
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MAGNIFICENT HUMMINGBIRD

Large for a hummingbird, it appears all black at a distance, but when the male turns in sunlight the crown flashes deep purple and the chin and throat glitter green. The bill is long and black, and the male's dark green tail is deeply forked. It is often found in deciduous woods along streams or on pine-oak mountain slopes.

• **SONG** Main call is grating *tcheep*. Also has squeaky scratchy twittering song.

• **BEHAVIOR** Aggressively defends feeding areas. Feeds on nectar, insects, and spiders. Hawks insects in flight and gleans them from foliage. Often sits on exposed, rather high perches. Attracted to the color red.

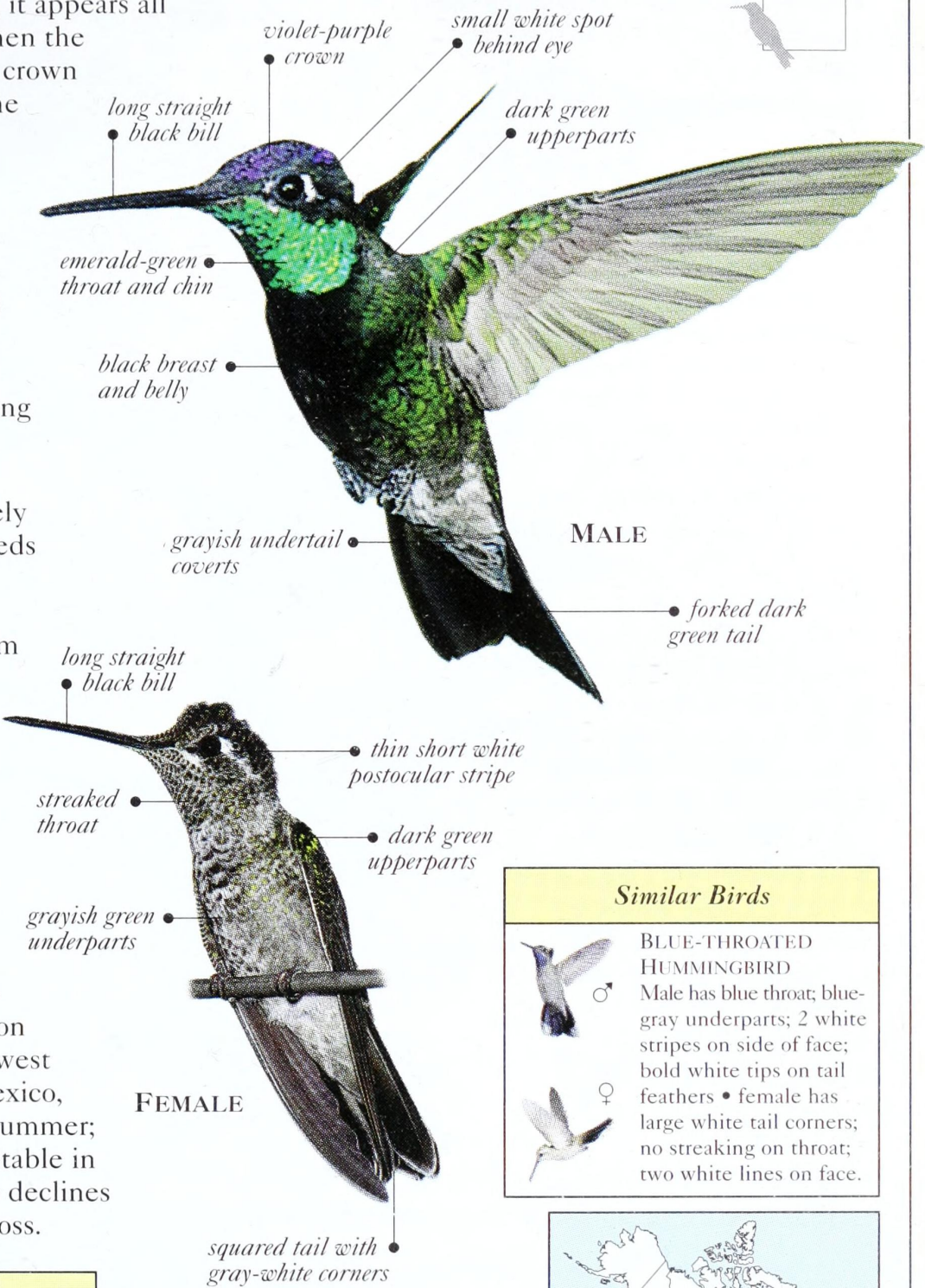
• **BREEDING** Solitary.

• **NESTING** Incubation about 16 days by female.

Fed by female. Young fledged at 20–24 days.

Probably 1 brood per year.

• **POPULATION** Common to fairly common in southwest Texas, southwest New Mexico, and southeast Arizona in summer; rare to casual elsewhere. Stable in restricted US range. Some declines in Mexico due to habitat loss.

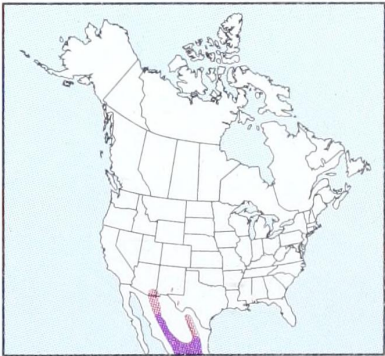


Similar Birds	
	BLUE-THROATED HUMMINGBIRD Male has blue throat; blue-gray underparts; 2 white stripes on side of face; bold white tips on tail feathers • female has large white tail corners; no streaking on throat; two white lines on face.
	

Flight Pattern	
	
Direct and hovering flight with very rapid wing beats.	

Nest Identification	
Shape 	Location 

- **FEEDERS** Attracted to nectar feeders with sugar water.
- **CONSERVATION** May be vulnerable to loss of mountain forest habitat in Mexico and Central America.



Silky plant fibers coated with spiderwebs outside • lined with soft plant down and coated with lichens • on horizontal branch of alder near stream, 20–55 feet above ground • also in walnut, pine, maple, and sycamore trees, 10–60 feet high • built by female • 2 white eggs.

Plumage Sexes differ	Habitat   	Migration Some migrate	Weight 0.3 ounce
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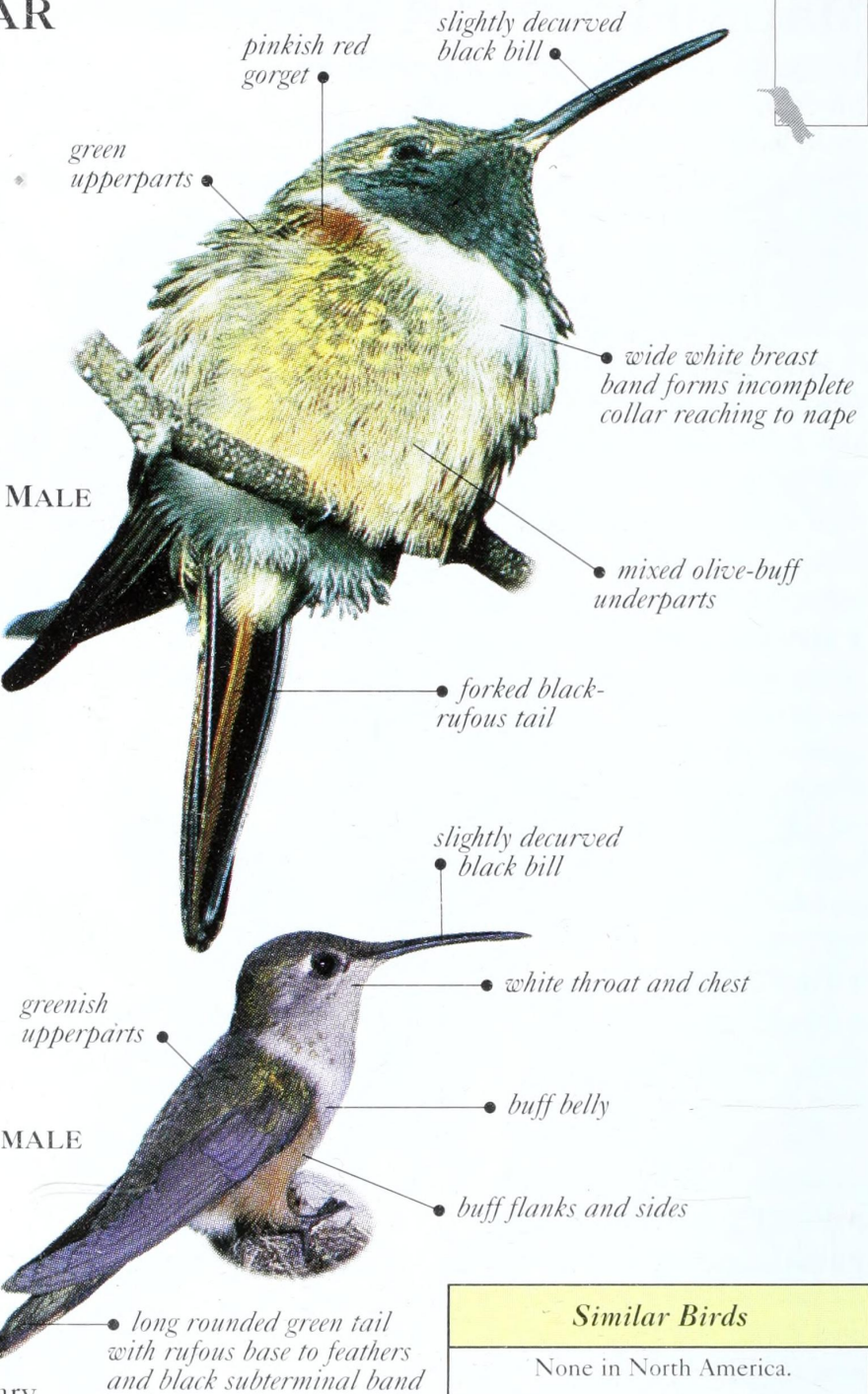
DATE _____ TIME _____ LOCATION _____

Family TROCHILIDAE	Species <i>Calliphlox celynae</i>	Length 3–4 inches	Wingspan 4–5 inches
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BAHAMA WOODSTAR

This beautiful little hummingbird is endemic to the Bahama Islands, where it is common. It is a very rare, and perhaps overlooked visitor to south Florida. The bird's white collar encircles its head and almost meets posteriorly at the nape. On the male the collar contrasts sharply with the pinkish red gorget and mixed olive-buff underparts. Males sometimes have pinkish red foreheads. Females have buff-tipped tail feathers. Watch for this little hummingbird in areas of scrubby and flowering low-growth vegetation and around gardens in the south Florida area.

- **SONG** This bird's common call is a sharp, staccato *tit, titit, tit, tit, titit*. Its chase call is rapid, dry, and rattling. The male's song is a jumble of high squeaks and raspy notes much like the sound of a fisherman winding his reel.
- **BEHAVIOR** Relatively tame; often allows close approach. Feeds on flowers in gardens and low scrub. Aggressively defends feeding areas from other hummers and even other species of birds.
- **BREEDING** Promiscuous. Solitary.
- **NESTING** Incubation 15–18 days by female. Fed by female.



Similar Birds
None in North America.

Flight Pattern	
Direct and hovering flight with very rapid wing beats.	

Altricial young fledge at approximately 20–23 days. 1–2 broods per year.

- **POPULATION** Rare in southern Florida; common in the Bahamas.
- **FEEDERS** Attracted to feeders with sugar water.



Nest Identification	
Shape	Location

Made of plant down and covered outside with bits of bark bound with cobwebs, 2–12 feet above ground in a fork in a bush or tree • built by female • 2 elliptical white eggs.

Plumage Sexes differ	Habitat	Migration Nonmigratory	Weight 0.2 ounce
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DATE _____ TIME _____ LOCATION _____

Family TROCHILIDAE

Species *Calothorax lucifer*

Length 3–4 inches

Wingspan 4–5 inches

LUCIFER HUMMINGBIRD

The only small hummingbird in the West with a long strongly decurved bill, the Lucifer Hummingbird frequents arid slopes with agave and yucca, where it is often attracted to the blooming flowers. Adult birds have greenish upperparts and a buff wash on the sides. Male birds have a brilliant violet-purple to violet-red throat and a long deeply forked tail that looks spikelike when closed.

• **SONG** Can be heard emitting high squeaky and twittering chip sounds.

• **BEHAVIOR** This hummingbird feeds primarily on nectar but also takes insects and spiders. It often feeds at fairly low levels. It is very aggressive at feeding stations. In the presence of a female the male displays with a buzzing flight that has a wide pendulum motion.

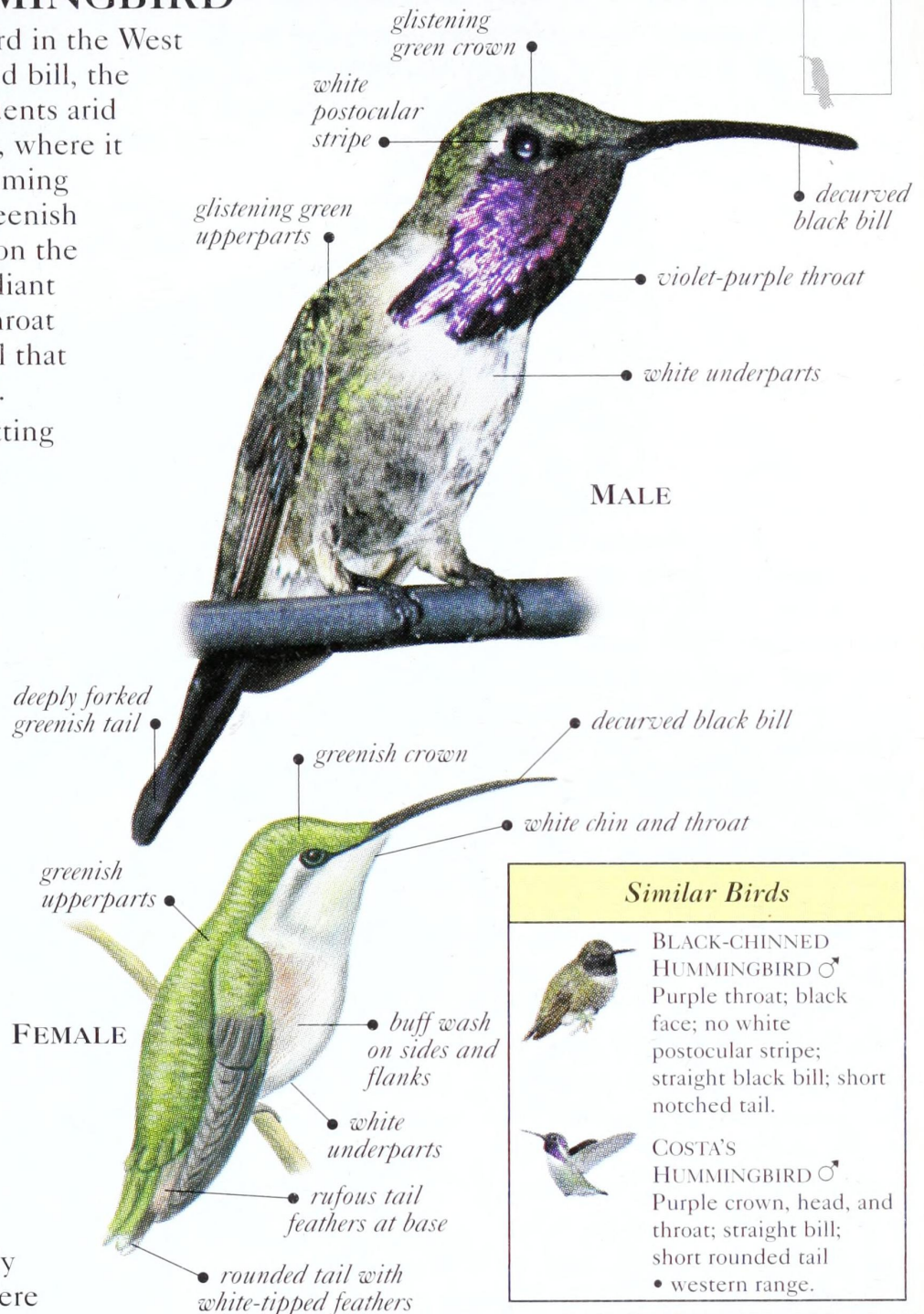
• **BREEDING**

Promiscuous. Solitary.

• **NESTING** Incubation 15 days by female.

Altricial young stay in nest 19–24 days. Up to 2 broods per year.

• **POPULATION** The breeding population of the Lucifer Hummingbird barely reaches the western US, where the birds are fairly common in the



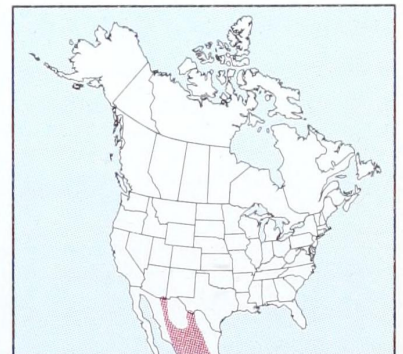
Similar Birds



BLACK-CHINNED HUMMINGBIRD ♂
Purple throat; black face; no white postocular stripe; straight black bill; short notched tail.



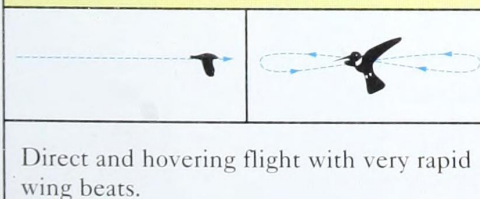
COSTA'S HUMMINGBIRD ♂
Purple crown, head, and throat; straight bill; short rounded tail • western range.



Big Bend area of Texas. It is rare to casual in scrublands, arid slopes, and canyons in southwest New Mexico and southeast Arizona. Accidental elsewhere. Winters in Mexico.

• **FEEDERS** Attracted to feeders with sugar water.

Flight Pattern



Nest Identification

Shape Location

Plant fibers, flowers, lichen, and seeds held together with spider's silk • in shrubs 4–6 feet above ground; sometimes in open cholla cactus, on stem of ocotillo, or on agave stalk 2–10 feet above ground • built by female • 2 white eggs.

Plumage Sexes differ

Habitat

Migration Migratory

Weight 0.1 ounce

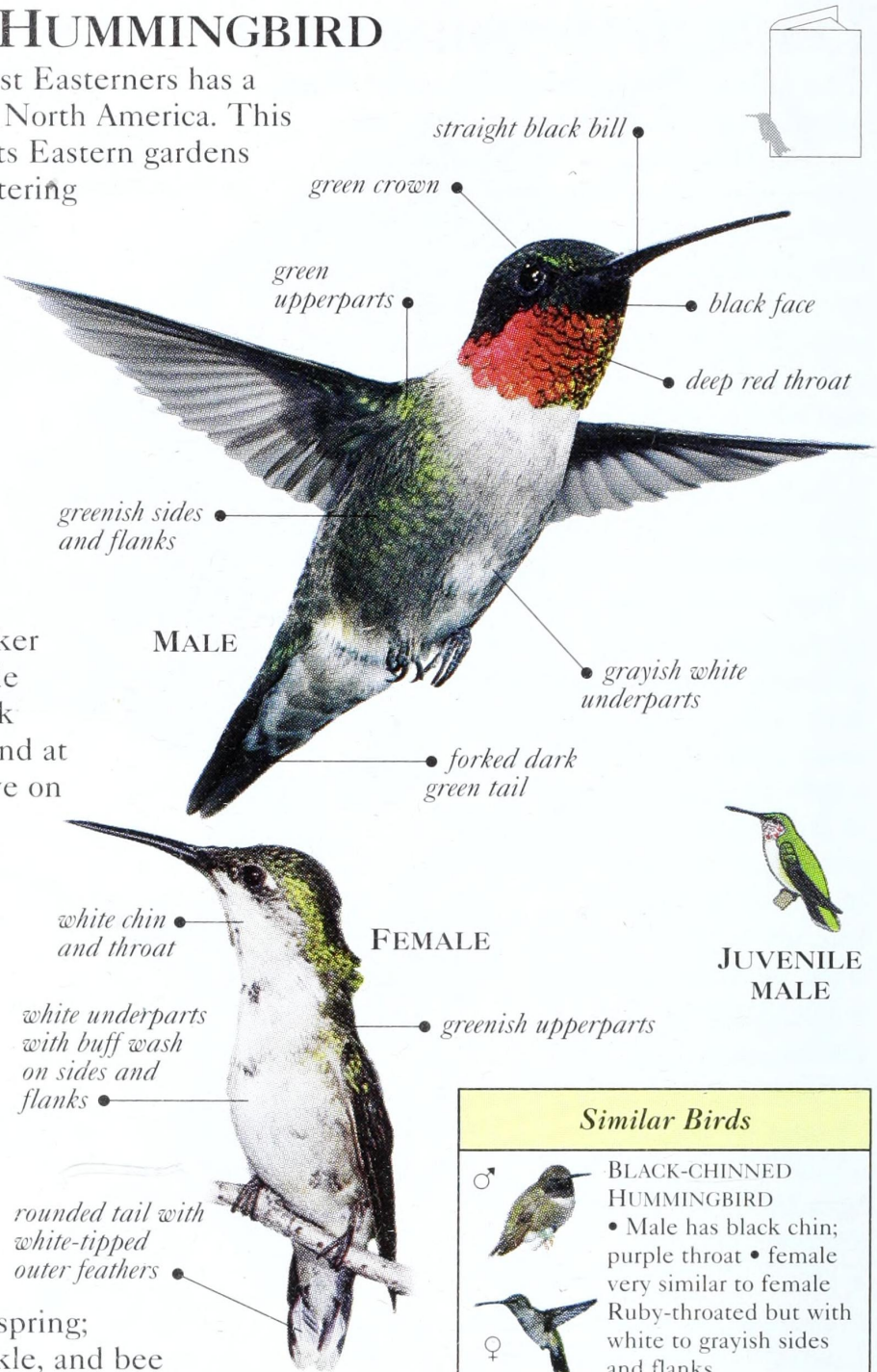
DATE _____ TIME _____ LOCATION _____

Family TROCHILIDAE	Species <i>Archilochus colubris</i>	Length 3–3.75 inches	Wingspan 4.25–4.5 inches
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RUBY-THROATED HUMMINGBIRD

The only hummer known by most Easterners has a range that covers most of eastern North America. This is the hummingbird that frequents Eastern gardens and feeders. Both sexes have glittering green crown and upperparts, and the underparts are grayish to white. Males have black faces and a deep red to orange-red throat, or gorget. The humming of its wings is clearly discernible from some distance.

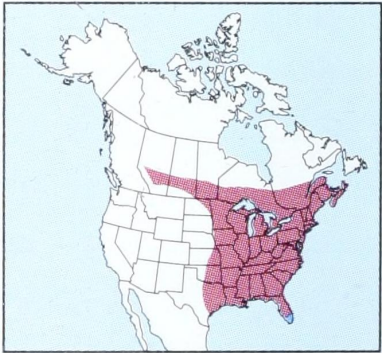
- **SONG** Series of rapid squeaky chipping notes.
- **BEHAVIOR** Feeds primarily on nectar but takes some insects and spiders, also sap from sapsucker drill wells. In courtship flight male makes huge a 180-degree arc back and forth, emitting a buzzing sound at its lowest point. Males often arrive on breeding grounds well ahead of females. These birds are strongly attracted to the color red, as are many other hummers.
- **BREEDING** Solitary.
- **NESTING** Incubation 11–16 days by female. Altricial young stay in nest 20–22 days. Fed by female. 1–3 broods per year.
- **POPULATION** Common to fairly common in breeding range. A few winter regularly in south Florida. Rare elsewhere.
- **FEEDERS** Red columbine in spring; saliva, trumpet or coral honeysuckle, and bee balm later in year. Also jewelweed, phlox, petunias, lilies, trumpet creeper, Siberian peatree, nasturtium, cone-shaped



Similar Birds

♂ **BLACK-CHINNED HUMMINGBIRD**
 • Male has black chin; purple throat • female very similar to female Ruby-throated but with white to grayish sides and flanks.

♀



Flight Pattern

Very rapid wing beats (up to 75 per second).

Nest Identification

Shape Location

red flowers (wild and domesticated), and sugar water.

- **CONSERVATION** Red food dyes added to sugar water may harm birds. Sometimes attracted to red supporting insulators on electrical fences, then killed.

Soft-plant down, fireweed, milkweed thistles, and leaves; bound with spider webs and cocoon material; trimmed with moss and lichens • looks like knot on a branch • 5–20 feet above ground, often on downsloping branch over brook and sheltered by leaves • built by female • 2 white eggs; elliptical, 0.5 x 0.3 inches.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.1 ounce
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Family TROCHILIDAE

Species *Archilochus alexandri*

Length 3.5–3.75 inches

Wingspan 4–5 inches

BLACK-CHINNED HUMMINGBIRD

Like others in its genus, this western hummingbird has a complex courtship display. While flying in a pendulum pattern, the male vibrates its wings to make a buzzing noise when diving downward past the perched female. The black throat and distinctive white collar set this bird apart from its close cousin, the Ruby-throated Hummingbird. In good light the lower throat glistens in a violet band. Juveniles resemble adult females, and juvenile males begin to show some violet on the lower throat in late summer.

• **SONG** Repetitive *teeew* or *tchew*. When defending feeding territory or giving chase, combines *teeew* note with high-pitched twitters and squeaks.

BEHAVIOR

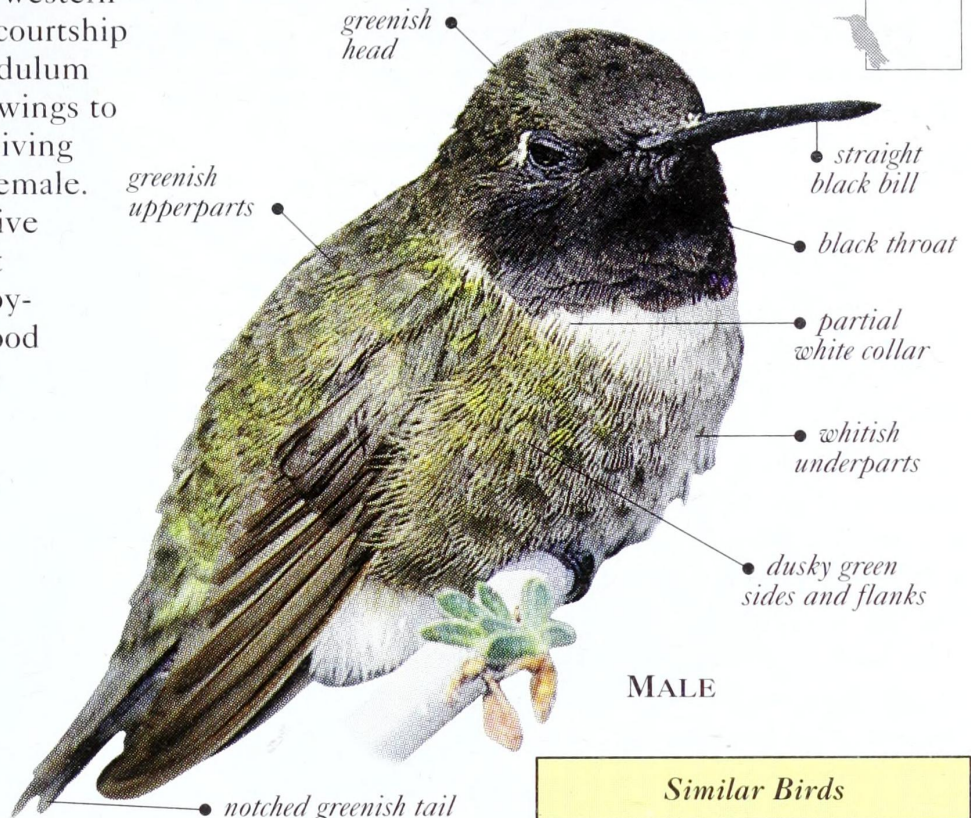
Solitary. Eats nectar, pollen, and insects. Hovers by flowers to gather nectar or sallies from perch to catch tiny insects in midair. Often twitches tail while hovering. Prefers arid areas. Bathes in water or by hovering against wet foliage.

• **BREEDING** Polygamous. Solitary nester.

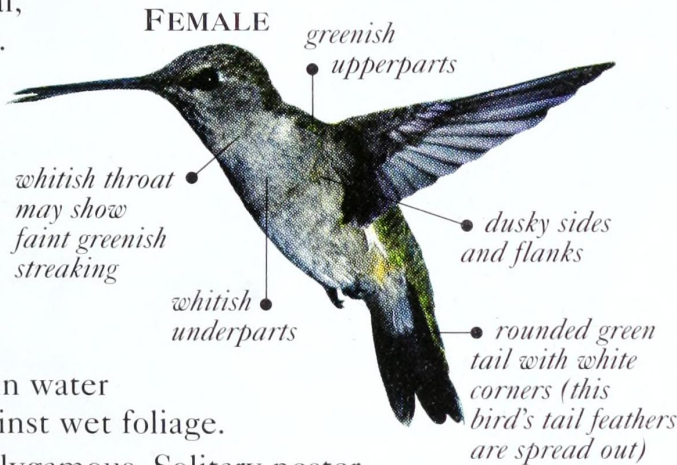
• **NESTING** Incubation 13–16 days by female. Young stay in nest 13–21 days. Fed by female. 2–3 broods per year.

• **POPULATION** Neotropical migrant. Common in lowlands and mountain foothills. Casual in the Southeast in winter.

• **FEEDERS** Visits feeders with sugar water.



MALE



FEMALE

Similar Birds



RUBY-THROATED HUMMINGBIRD ♀
Female twitches tail less while feeding; shorter bill; greener crown; buff wash on sides; different voice.



COSTA'S HUMMINGBIRD ♀
Smaller; generally grayer upperparts and whiter underparts; squared tail with white tips and black central tail feathers; different voice
• does not stray to the Southeast.

Flight Pattern



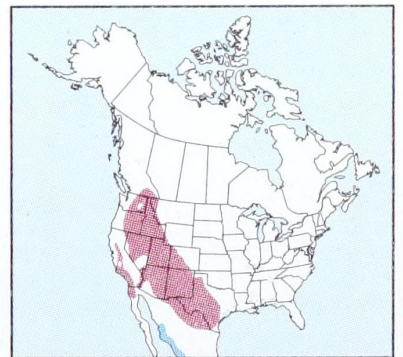
Swift direct flight. Hovers with rapid wing beats (approximately 75 times per second) to feed. Can fly backward.

Nest Identification

Shape

Location

Plant down and spider's silk • decorated outside with small leaves and flowers
• set in fork of small branch 4–8 feet above ground (sometimes up to 30 feet)
• built by female • 1–3 white eggs; elliptical, with 1 end slightly more pointed, 0.5 x 0.3 inches.



Plumage Sexes differ

Habitat

Migration Migratory

Weight 0.1 ounce

DATE _____ TIME _____ LOCATION _____

Family TROCHILIDAE	Species <i>Calypte anna</i>	Length 3.5–4 inches	Wingspan 4.75 inches
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ANNA'S HUMMINGBIRD

Able to adapt to suburban habitat, this hummingbird is expanding geographically and becoming more numerous. Although predominantly nonmigratory, some have been reported to migrate. It eats more insects and spiders than any other hummingbird. The male, which often vocalizes while perched, is the only North American hummingbird with rose-red crown and throat. Juveniles are similar to females, but juvenile males have some red on the crown as well as the throat.

• **SONG** Sharp squeaky call, *chick*. Chase calls are rapid, high-pitched rattles. Song is garbled mixture of coarse squeaky notes, usually delivered from a perch.

• **BEHAVIOR** Solitary. Eats nectar, insects, spiders, and sap from sapsucker drill wells. Hovers to gather nectar from flowers. Catches insects in midair and plucks spiders and insects from spider webs. Often bathes by hovering against rain- or dew-covered foliage. Male displays for female in a high arc, making explosive *chirp* at the bottom after a rapid dive. Often found in gardens and attending ornamental plantings in yards.

• **BREEDING** Polygamous. Solitary.

• **NESTING** Incubation 14–19 days by female. Altricial young stay in nest 18–23 days, fed by female. 2–3 broods per year.

• **POPULATION** Abundant; increasing. Vagrants get to coastal Alaska in summer; casual to accidental in the East in winter.

• **FEEDERS** Sugar-water.

• **CONSERVATION** Neotropical migrant wintering south to central Baja and northwestern Mexico.

Flight Pattern

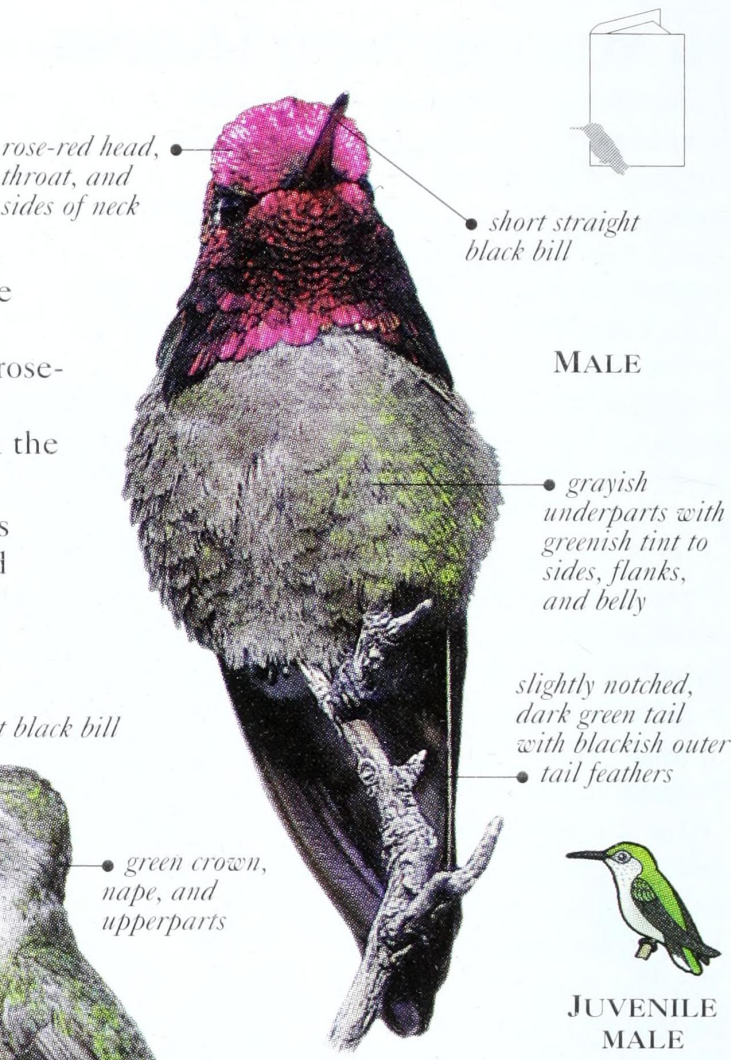


Flies forward, backward, up, down, and side to side on rapidly beating wings as it feeds. Swift darting flight from place to place. Wing beats a blur.

Nest Identification

Shape 	Location  
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Plant down bound with spider silk and lined with plant down and feathers • on small tree branch, on ledge of cliff, or sometimes on utility wire • 1.5–30 feet above ground • built by female • 1–3 white eggs; elliptical oval or subelliptical, with similar curvatures at each end, 0.5 x 0.3 inches.



Similar Birds



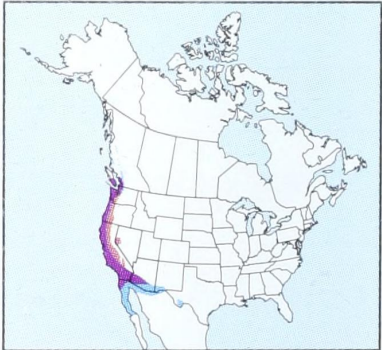
BLACK-CHINNED HUMMINGBIRD ♀



COSTA'S HUMMINGBIRD ♀

Smaller; whitish underparts; lack red markings on throat

- Costa's winters only as far east as west Texas.



Plumage Sexes differ	Habitat      	Migration Nonmigratory	Weight 0.1 ounce
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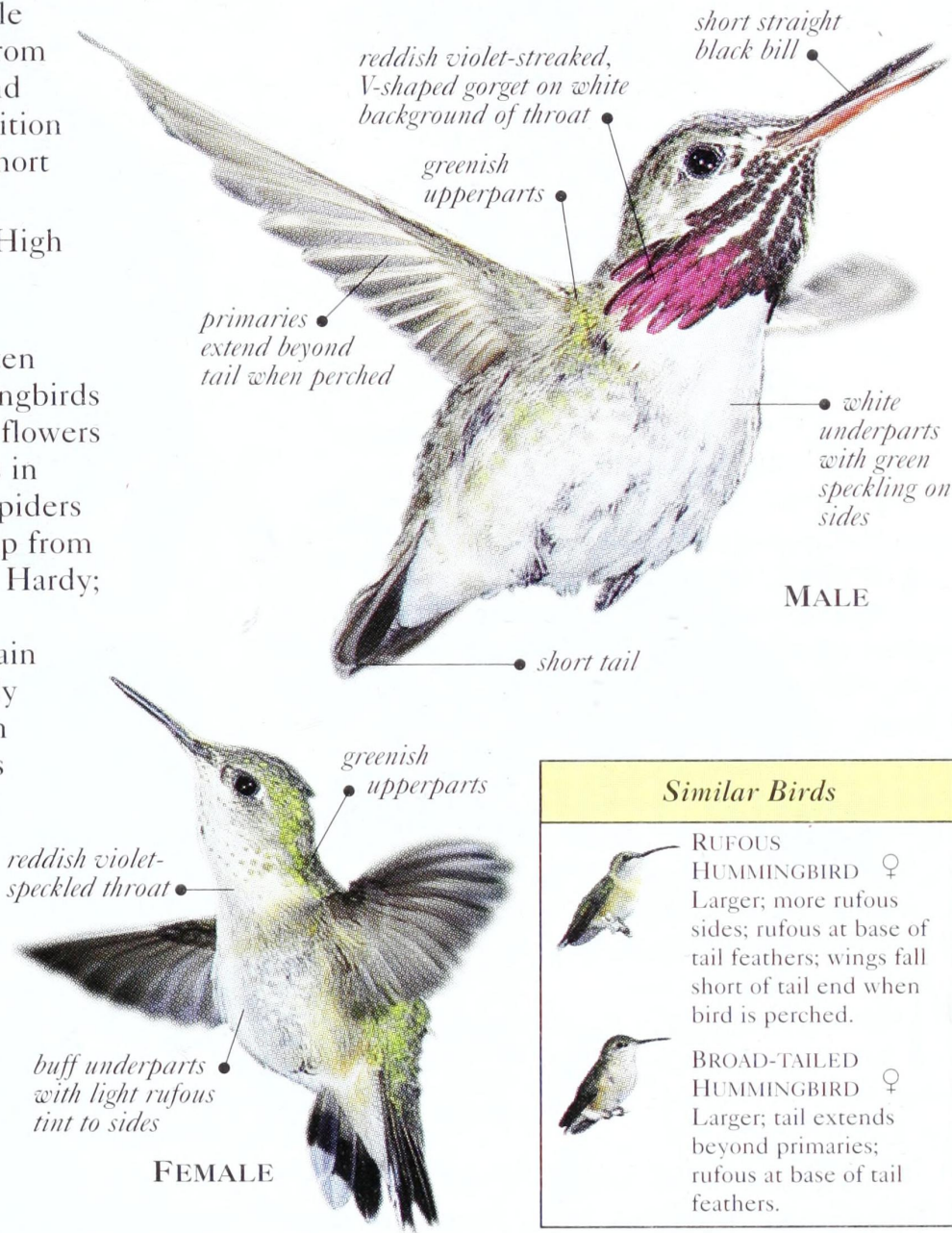
DATE _____ TIME _____ LOCATION _____

Family TROCHILIDAE	Species <i>Stellula calliope</i>	Length 2.75–3.25 inches	Wingspan 4.25 inches
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CALLIOPE HUMMINGBIRD

This is the smallest bird north of Mexico. As the female incubates her eggs in the extreme cold of the high mountains, she does not become torpid but is able to maintain her body heat from the insulation in the nest and by remaining at rest. In addition to the small size, note the short black bill and the short tail.

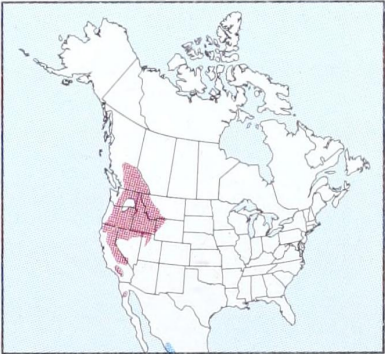
- **SONG** Relatively silent. High shrill sharp chips, *si tsi-tsi, tsi-tsi*, repeated.
- **BEHAVIOR** Solitary. Often dominated by other hummingbirds at flowers. Hovers over low flowers to feed and snatches insects in midair. Plucks insects and spiders from web and also drinks sap from holes drilled by sapsuckers. Hardy; inhabits open coniferous, montane forests and mountain meadows. Courting males fly in huge U-shaped pattern in front of the female, rising as high as 65 feet before darting back down to repeat the pattern. Gives high-pitched *bzzt* note at bottom of dive.
- **BREEDING** Polygamous. Solitary.
- **NESTING** Incubation 15–16 days by female. Young stay in nest 18–23 days, fed by female. 1 brood per year, although may possibly have 2 broods.



Flight Pattern	
Hovers on whirring wings when feeding; moves up, down, back, and forward. Swift zipping direct flight from place to place.	
Nest Identification	
Shape	Location

- **POPULATION** Common. Rare in the Southeast in fall and in winter.
- **FEEDERS** Will come to feeders filled with sugar water.
- **CONSERVATION** Neotropical migrant. Vulnerable to loss of habitat.

Similar Birds	
	RUFOUS HUMMINGBIRD ♀ Larger; more rufous sides; rufous at base of tail feathers; wings fall short of tail end when bird is perched.
	BROAD-TAILED HUMMINGBIRD ♀ Larger; tail extends beyond primaries; rufous at base of tail feathers.



Shredded bark, bits of cones, and plant down, covered with lichen • bound with cocoon material and spider's silk, with lining of plant down • on dead or live tree limbs or on conifer cone, protected by larger tree branches • sometimes built on previous year's nest • 2–70 feet above ground • built by female • 2 white eggs; elliptical to oval, 0.5 x 0.3 inches.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.1 ounce
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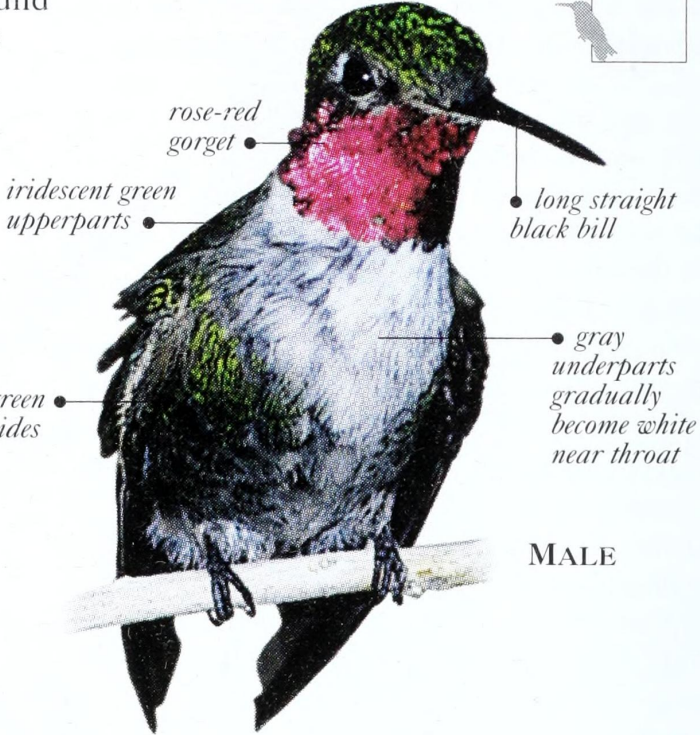
DATE _____ TIME _____ LOCATION _____

Family TROCHILIDAE	Species <i>Selasphorus platycercus</i>	Length 4–4.5 inches	Wingspan 5 inches
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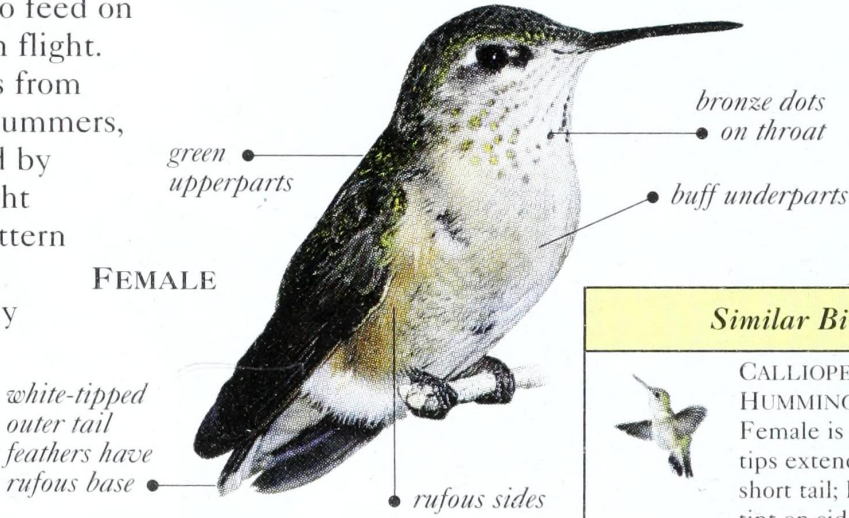
BROAD-TAILED HUMMINGBIRD

The male’s wings produce a unique trilling sound when the bird is in flight. The buzzing whistle sound is produced by air rushing through the slots created by the finely tapered tips of the male’s outer primaries. Dwelling in the Rocky Mountains and outlying mountain ranges, it can be seen bathing in the shallow waters of mountain streams or defending its territory of flower patches from other hummingbirds. When perched the wings extend beyond the tail tip.

- **SONG** Fairly sharp but not hard, repeated *chip*; *chitter chitter chitter*; no song. In display makes high thin slurred *szzzzzziiuu*.
- **BEHAVIOR** Solitary. Feeds and perches at low to middle levels in open pine and pine-oak woodlands and edges. Eats nectar, insects, spiders, and sap. Hovers with tail closed, rarely flashed open or wagged, to feed on nectar and catch insects in flight. Plucks insects and spiders from spider webs. Like other hummers, eats sap from holes drilled by sapsuckers. In display flight male flies in U-shaped pattern in front of female, diving 30–50 feet; both sexes may ascend together to 90–100 feet, with one 4–5 feet beneath the other, before diving back down again.
- **BREEDING** Promiscuous. Solitary nester.
- **NÉSTING** Incubation 14–17 days by female. Young stay in nest 21–26 days. Fed by female. 1–2 broods per year.



MALE

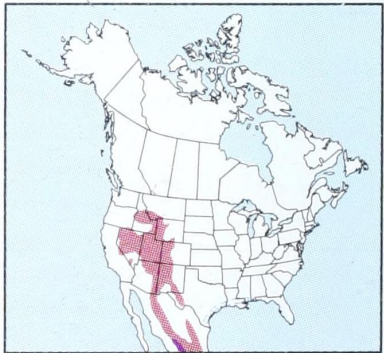


FEMALE

Similar Birds



CALLIOPE HUMMINGBIRD ♀
Female is smaller; wing tips extend beyond short tail; lighter rufous tint on sides; no rufous in bases of tail feathers; shorter bill.



Flight Pattern



Hovers when feeding, moving in all directions in a blur of rapidly beating wings. Swift dashing direct flight from point to point.

Nest Identification

Shape  Location 

- **POPULATION** Common in summer in mountains. Casual in autumn and winter in Gulf Coast states.
- **FEEDERS** Sugar water.
- **CONSERVATION** Neotropical migrant.

Plant down and bound with spider webs; exterior made of lichens, bark shreds, and leaves • on horizontal tree branch or occasionally in fork; often near or over mountain streams; 4–15 feet above ground • built by female • 2 white eggs; elliptical-oval or subelliptical, 0.5 x 0.34 inches.

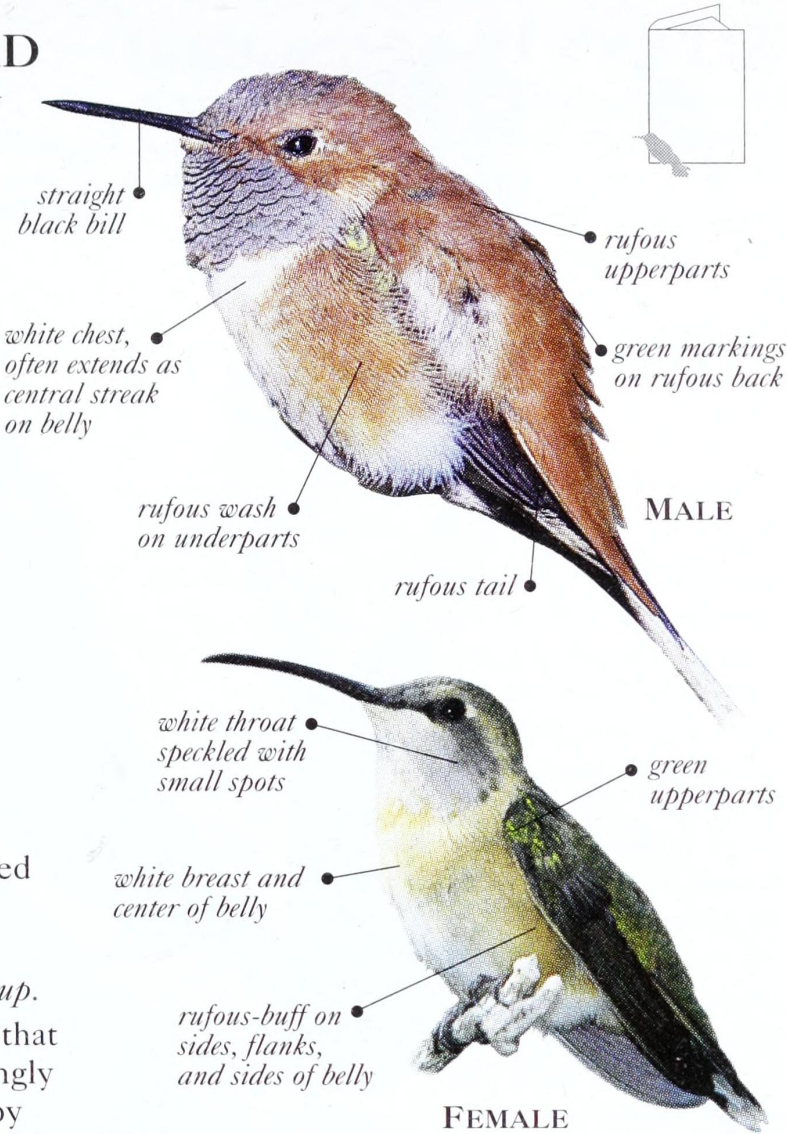
Plumage Sexes differ	Habitat   	Migration Migratory	Weight 0.1 ounce
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Family TROCHILIDAE	Species <i>Selasphorus rufus</i>	Length 3.75 inches	Wingspan 4.75 inches
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RUFOUS HUMMINGBIRD

This tenacious hummingbird aggressively defends its territory and will attack not only larger birds such as blackbirds and thrushes, but also chipmunks. At feeders it is intolerant of all other would-be visitors and spends much of its time driving them away from the nectar. Like most hummingbirds, highly attracted to the color red, it has been known to examine human clothing, magazine covers, and other items showing this color. This is the only hummingbird in North America with a rufous back, and the one most likely to be seen in the East in the fall and winter after the Ruby-throated Hummingbirds have migrated south. The male has green markings on his rufous back, and his gorget sparkles copper-red in good light; the female also has small spots on her throat that appear red in certain light.

- **SONG** Call is sibilant *chewp chewp*; in defense chases, proclaims *zee-chupppity-chup*.
- **BEHAVIOR** Solitary. A hardy hummer that nests as far north as southern Alaska. Strongly prefers red to any other color and hovers by red tubular flowers, such as columbine and tiger lilies, to gather nectar. Feeds and perches at low to middle levels. Catches insects in midair and eats sap from holes drilled by sapsuckers. Plucks spiders and insects from webs. Wings make buzzy whistle in flight. Male displays for female in U-shaped or oval pattern; ascends with back to female, then dives, turning toward her on whistling wings with orange-red gorget flashing.
- **BREEDING** Polygamous. Solitary in small loose semicolonies.
- **NESTING** Incubation 12–14 days by female. Altricial young stay in nest 20 days, fed by female. 1–2 broods per year.



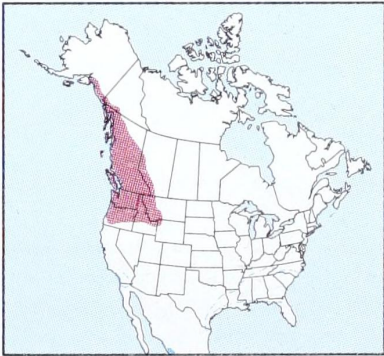
Similar Birds



♂ ALLEN'S HUMMINGBIRD
Male has green back; female indistinguishable in the field; in the hand, tail feathers more slender.



♀



Flight Pattern



Hovers while feeding; darts up and down, in and out, and backwards; swift and dashing flight on a blur of whirring wings.

Nest Identification

Shape 

Location 

- **POPULATION** Abundant to common. Rare in the East in fall and winter.
- **FEEDERS** Sugar water.
- **CONSERVATION** Neotropical migrant. Possible decline in recent years; no noted cause.

Plant down, covered with lichen, moss, bud scales, leaves, shredded bark, and plant fibers; bound with spider silk and lined with plant down • most often on drooping limb; occasionally in fork of tree or shrub, 5–50 feet above ground • built by female • 2 white eggs; elliptical oval or subelliptical, 0.5 x 0.33 inches.

Plumage Sexes differ	Habitat 	Migration Migratory	Weight 0.1 ounce
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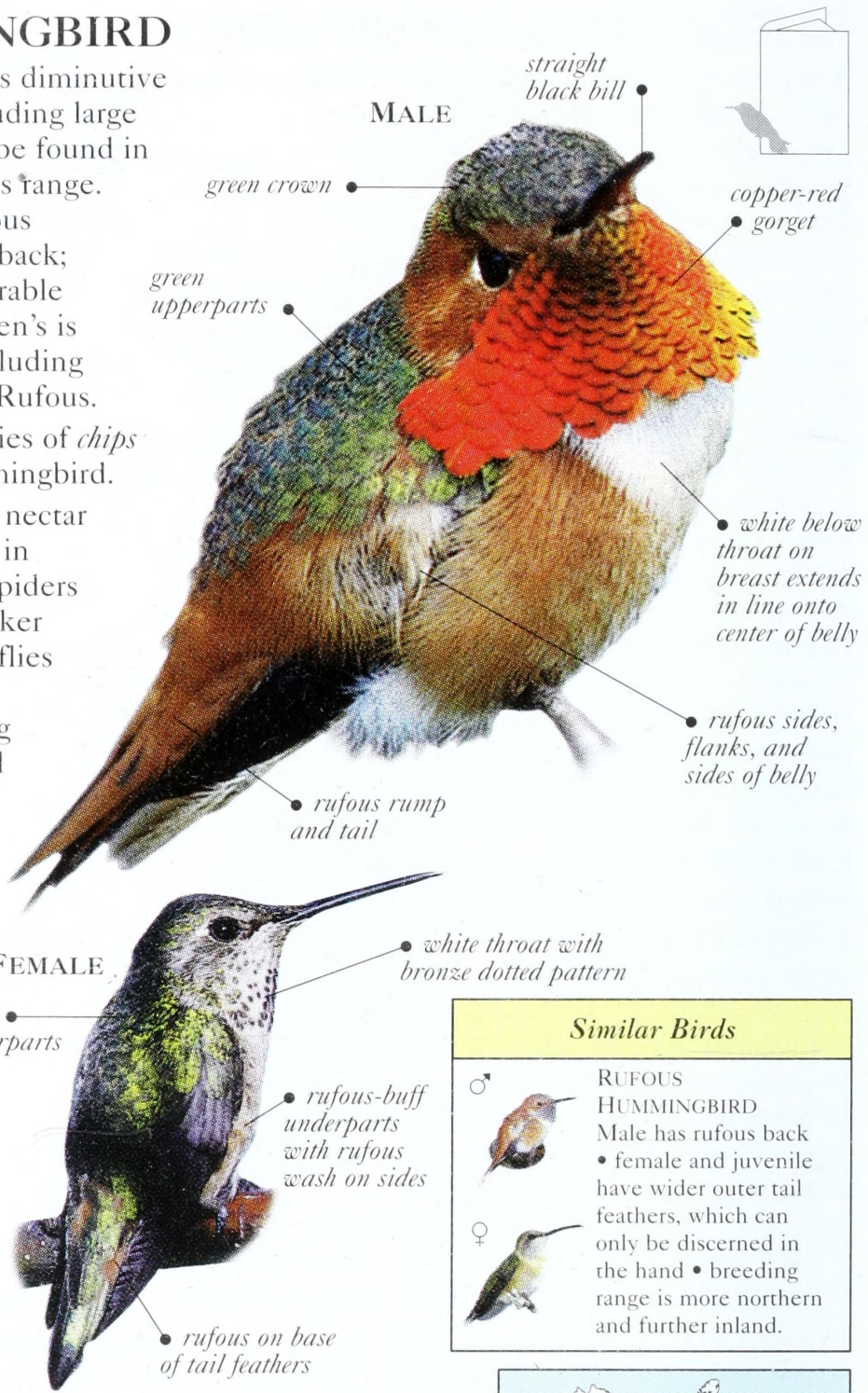
DATE _____ TIME _____ LOCATION _____

Family TROCHILIDAE	Species <i>Selasphorus sasin</i>	Length 3.75 inches	Wingspan 4.75 inches
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ALLEN'S HUMMINGBIRD

When defending its territory this diminutive bird will attack many birds, including large hawks. Highly adaptable, it can be found in suburban gardens and parks in its range. Males appear similar to the Rufous Hummingbird but have a green back; females and juveniles are inseparable from the Rufous in the field. Allen's is often found in drier habitats, including chaparral and thickets, than the Rufous.

- **SONG** Utters sharp *chip* or series of *chips* similar to voice of Rufous Hummingbird.
- **BEHAVIOR** Solitary. Gathers nectar from flowers and catches insects in midair. Also plucks insects and spiders from webs. Eats sap from sapsucker holes. In courtship display male flies in J-shaped pattern: He ascends 75–80 feet and dives on whistling wings to the level of the perched female, then ascends about 25 feet on the other side of the arc and hovers, with his gorget glittering in the sun. Begins with pendulum-like, side-to-side display. Males may depart breeding areas a month or more before females depart.
- **BREEDING** Promiscuous. Solitary nester. Semicolonial, with nests often clustered.
- **NESTING** Incubation 15–22 days by female. Young stay in nest 22–25 days. Fed by female. 2 broods per year.
- **POPULATION** Common to



Similar Birds

♂



RUFOUS HUMMINGBIRD
Male has rufous back • female and juvenile have wider outer tail feathers, which can only be discerned in the hand • breeding range is more northern and further inland.

♀



Flight Pattern



Hovers when feeding, moving in all directions in a blur of rapidly beating wings. Swift darting direct flight.

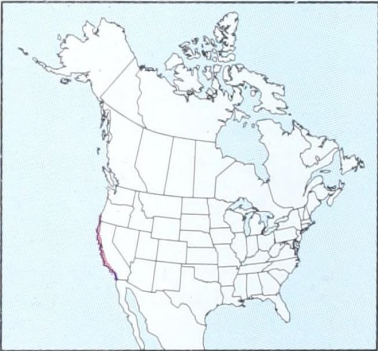
Nest Identification

Shape 

Location 

fairly common. Casual to rare vagrant in the East in autumn migration and winter.

- **FEEDERS** Sugar water.
- **CONSERVATION** Declining because of habitat loss.



Plumage Sexes differ	Habitat 	Migration Neotropical migrant	Weight 0.1 ounce
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Family TROGONIDAE	Species <i>Trogon elegans</i>	Length 11–12.5 inches	Wingspan 18–22 inches
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ELEGANT TROGON

More often heard than seen, this bird has a habit of sitting practically motionless for long periods of time in or just below the canopy. Its posture is erect, with the long tail pointing straight down. Plumage features a unique combination of pink (female) to deep red (male) underparts and a tail that is white below with narrow black vermiculations and black terminal band.

• **SONG** Series of hoarse, throaty, downslurred *k'row'hr* notes repeated 5–10 times, then a pause before the next series.

• **BEHAVIOR** Often sits quietly for long periods in sycamores and oaks in wooded mountain canyons, particularly in the vicinity of streams. Feeds on insects, berries, and fruits, which it often gathers by sallying or by hovering beneath vegetation. Often vocal in early morning, with calls carrying long distances in mountain canyons. Often allows fairly close approach.

• **BREEDING** Monogamous. Solitary.

• **NESTING** Incubation 22–23 days by both sexes. Altricial young stay in nest 20–23 days. Fed by both sexes.

• **POPULATION** US population small and local. Accidental to casual in south Texas.

• **CONSERVATION** Vulnerable to habitat loss by deforestation, as well as to disturbance by observers while nesting, especially if playback voice recordings are used to attract territorial birds.

Flight Pattern

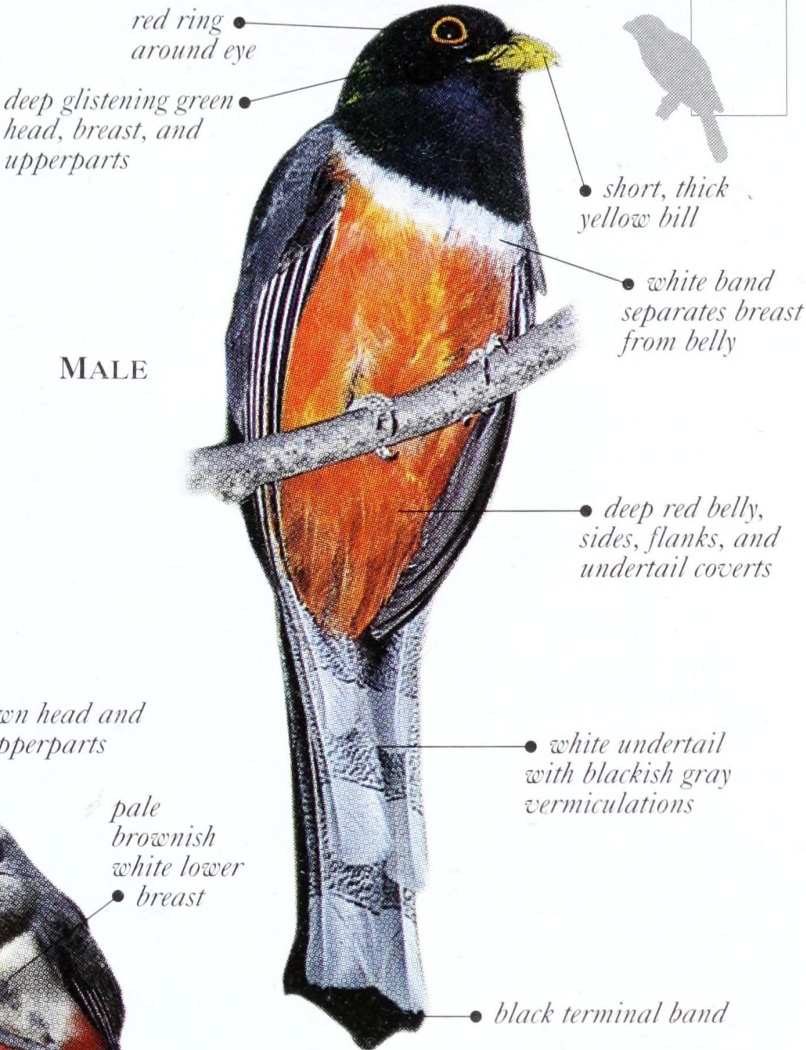
Slow undulating flight, but rapid when bird is pressed.

Nest Identification

Shape

Location

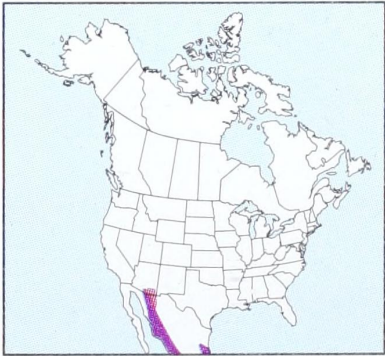
Hay, straw, trash, mosses, wool, feathers, and thistle down with little or no lining • inside natural cavity of large streamside trees such as sycamores or in deserted woodpecker hole • 12–40 feet above ground • 3–4 white eggs; rounded ovate to oval; 1.14 x 0.9 inches.



Similar Birds

EARED TROGON
Larger; dark bill; larger patch of white on blue-black tail; no white band across breast

- no white patch behind ear of female
- does not stray into southeast Texas.



Plumage Sexes differ	Habitat	Migration Most do not migrate	Weight 2.4 ounces
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DATE

TIME

LOCATION

Family ALCEDINIDAE	Species <i>Ceryle torquata</i>	Length 16.5 inches	Wingspan 24–29 inches
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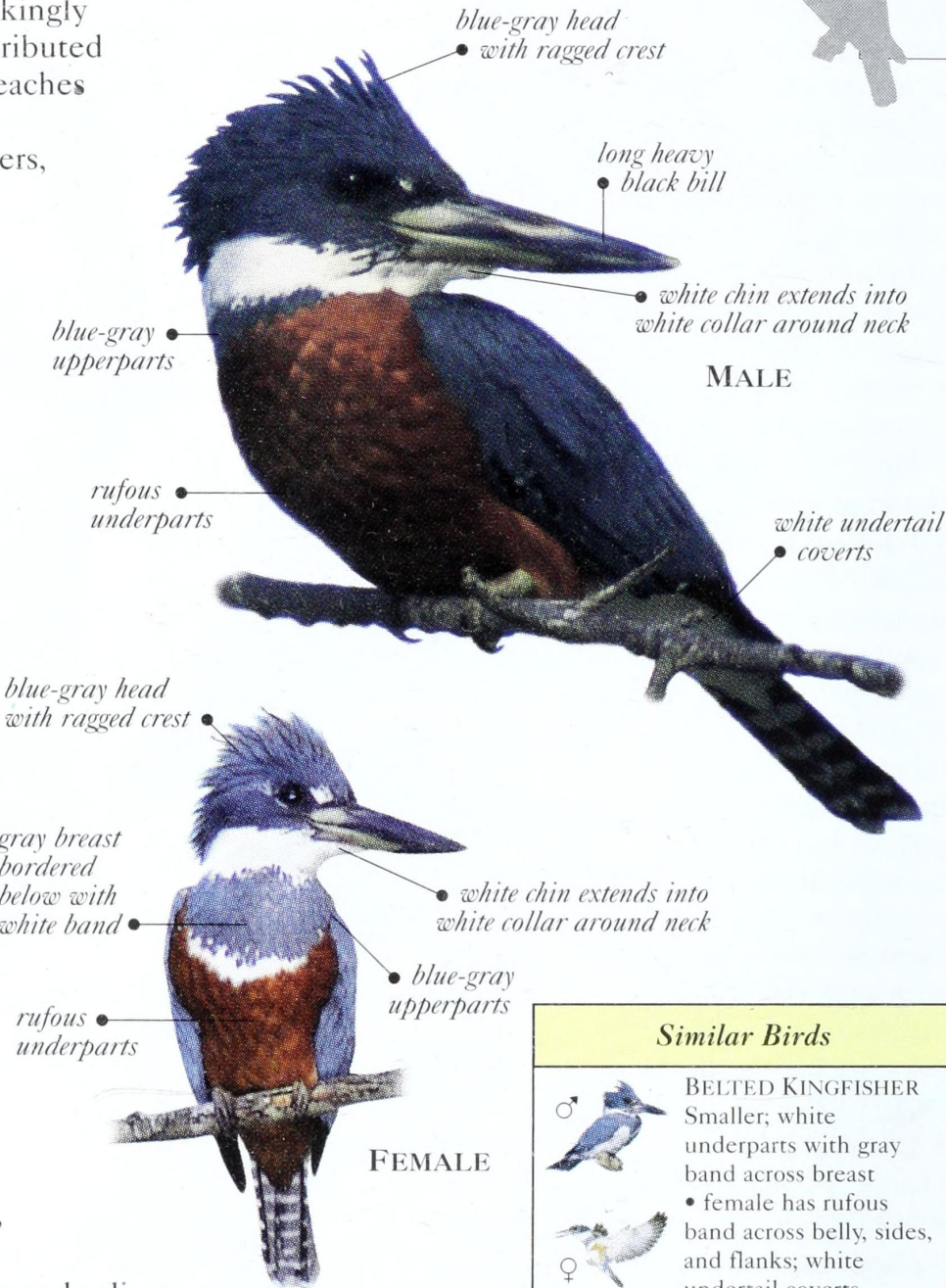
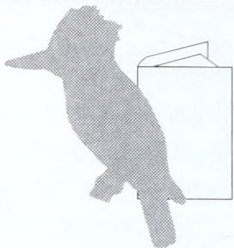
RINGED KINGFISHER

This is the largest kingfisher in the Western Hemisphere. A strikingly colored bird, it is widely distributed in the Americas but barely reaches north of the US border with Mexico. Found along big rivers, this bird flies and perches high. The upperparts and most of the head are blue-gray, while the underparts are chiefly bright rufous. The black bill is large. In flight, males show white underwing and undertail coverts; females show rufous.

- **SONG** Drawling low-pitched harsh loud clattering rattle. In flight this bird gives a loud *cla-ak!*
- **BEHAVIOR** Largely solitary and somewhat noisy. Found along larger rivers, lakes, and lagoons, where it hunts from a perch and dives for fish and sometimes frogs and reptiles. Often wags or bobs its tail. Often perches high on overhanging branches, poles, and utility wires.

- **BREEDING** Monogamous and solitary.
- **NESTING** Incubation by both sexes. Altricial young remain in nest 35 days, fed by both sexes.

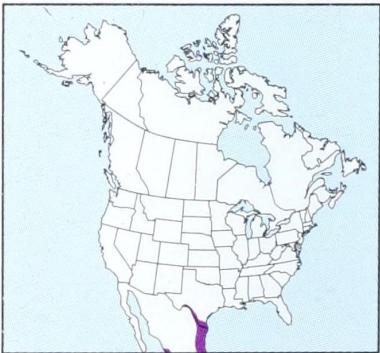
- **POPULATION** Uncommon and local but has gradually increased its range in the southeast Texas area since the mid-1960s. Widespread in the American tropics.



Similar Birds



BELTED KINGFISHER
Smaller; white underparts with gray band across breast
• female has rufous band across belly, sides, and flanks; white undertail coverts.



Flight Pattern

High direct flight with floppy wing beats.

Nest Identification

Shape Location

Digs burrows in high bank • sometimes far from water • 5–8 feet deep
• 3–6 white eggs.

Plumage Sexes differ	Habitat	Migration Nonmigratory	Weight 11.1 ounces
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DATE _____ TIME _____ LOCATION _____

Family ALCEDINIDAE	Species <i>Ceryle alcyon</i>	Length 11–14.5 inches	Wingspan 22–26 inches
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BELTED KINGFISHER

Widely distributed and common along freshwater bodies of water as well as the coast, this is the only kingfisher across most of its range, except along the Mexican border. It is one of the few North American birds in which the female is more colorful than the male. The male has blue-gray upperparts with a blue-gray band across the breast and appears big-headed with its large bill and ragged crest. In flight it shows a white patch on the upperwing at the base of the primaries.

• **SONG** Bold raspy rattle sounds like a heavy fishing reel.

• **BEHAVIOR** Generally solitary. Plunges headfirst into water from perch or a hover up to 20 feet or more above water to catch fish. Feeds primarily on fish but also takes amphibians, reptiles, insects, crustaceans, and mollusks.

Frequents favorite perches along waterways for hunting. Pair digs burrow in bank 3–7 feet deep (can be up to 15 feet).

BREEDING

Monogamous; solitary nester.

NESTING

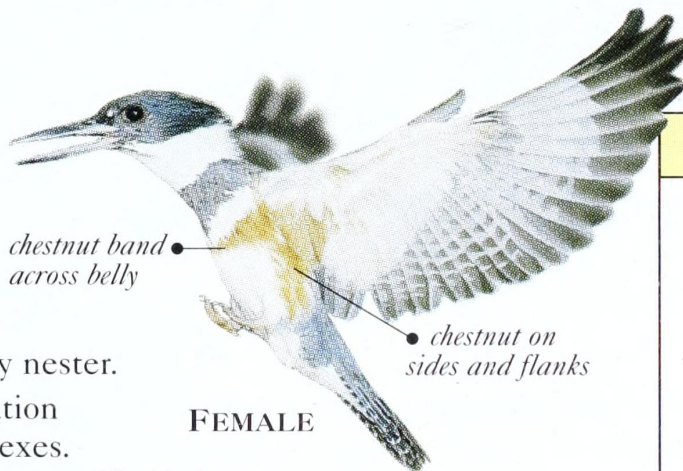
Incubation 23–24 days by both sexes.

Altricial young stay in nest 27–29 days.

Fed by both sexes. 1–2 broods per year.

• **POPULATION** Slight decline in North America.

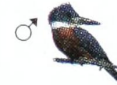
• **CONSERVATION** Often viewed as problem at fish hatcheries; before regulation they were shot and killed at hatcheries and along trout streams. This may still occur at some hatcheries.



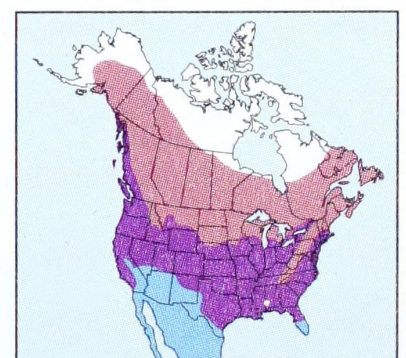
Similar Birds



BLUE JAY
Smaller; brighter blues; black band on breast forms collar.



RINGED KINGFISHER
In southeast Texas only
• larger • male has bright rufous-chestnut underparts with no white; female has narrow white band.



Flight Pattern



Slow direct flight with somewhat erratic pattern. Hovers above water to search for prey.

Nest Identification

Shape

Location

Horizontal burrow, occasionally slanted upward, in bank beside fresh water
• usually no lining but debris and undigested fish bones and scales • may be far from water • 3–7 feet long • built by both sexes • 5–8 white eggs, about 1.3 x 1.0 inches.

Plumage Sexes differ

Habitat

Migration Some migrate

Weight 5.2 ounces

DATE _____ TIME _____ LOCATION _____

Family	ALCEDINIDAE	Species	<i>Chloroceryle americana</i>	Length	8.75 inches	Wingspan	11–13 inches
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GREEN KINGFISHER

Our smallest kingfisher has a very restricted US range. It has dark green upperparts with a white collar and a long black bill. The white outer tail feathers are conspicuous in flight, when the bird may call attention to itself with its high-pitched *cheep* notes. Since it hunts from low perches along quiet waterways, it is difficult to see.

• **SONG** Faint but abrasive *tick tick*, usually with a brief rattle at the end. In flight, the Green Kingfisher utters squeaky *cheep* notes.

• **BEHAVIOR** This bird prefers small clear streams, quiet pools, and backwaters, where it hunts from low perches along the edge of the water or from rocks in the water. It does not hover like larger kingfishers. Feeds primarily on small fish taken in a plunging dive and on aquatic insects and amphibians. Can be easily overlooked except for its sharp vocalizations.

• **BREEDING** Monogamous and solitary.

• **NESTING** Incubation 19–21 days by both sexes. Altricial young remain in the nest 22–26 days, fed by both sexes.

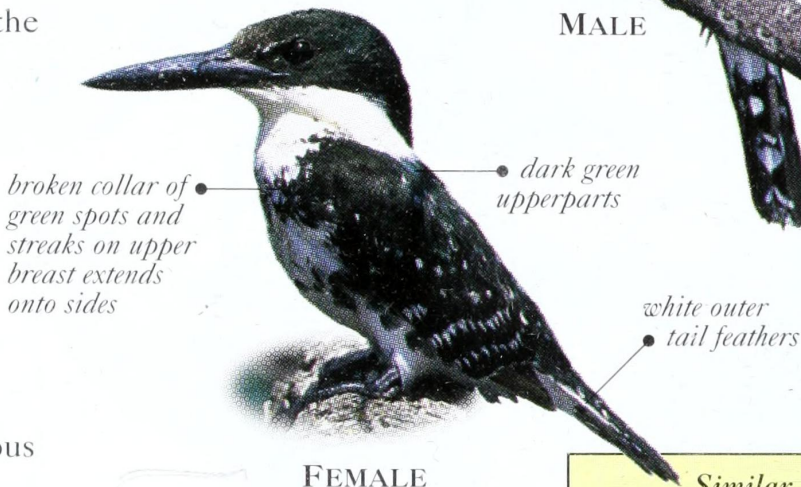
• **POPULATION** Uncommon and local in southern Texas; may have declined in parts of Texas with loss of streamside habitat. Rare to casual in southeastern Arizona; has recently begun nesting

locally in south Arizona, spreading north from Mexico across the US border.

• **CONSERVATION** Water pollution and loss of streamside riparian habitats have negative impacts on the small populations of this kingfisher.



MALE

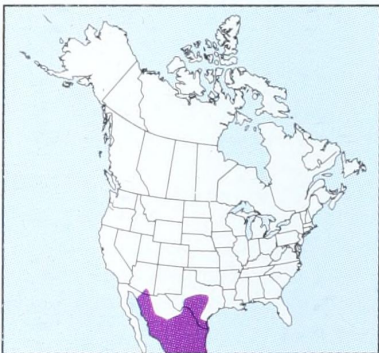


FEMALE

Similar Birds



BELTED KINGFISHER ♂
RINGED KINGFISHER ♂
Larger with blue-gray upperparts and head.



Flight Pattern	
Rapid buzzing direct flight.	

Nest Identification	
Shape	Location

Horizontal burrow 2–3 feet deep in stream bank • built by both sexes
• 3–6 white eggs, 1 inch in diameter.

Plumage	Sexes differ	Habitat		Migration	Nonmigratory	Weight	1.3 ounces
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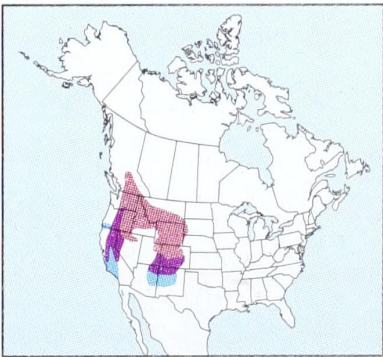
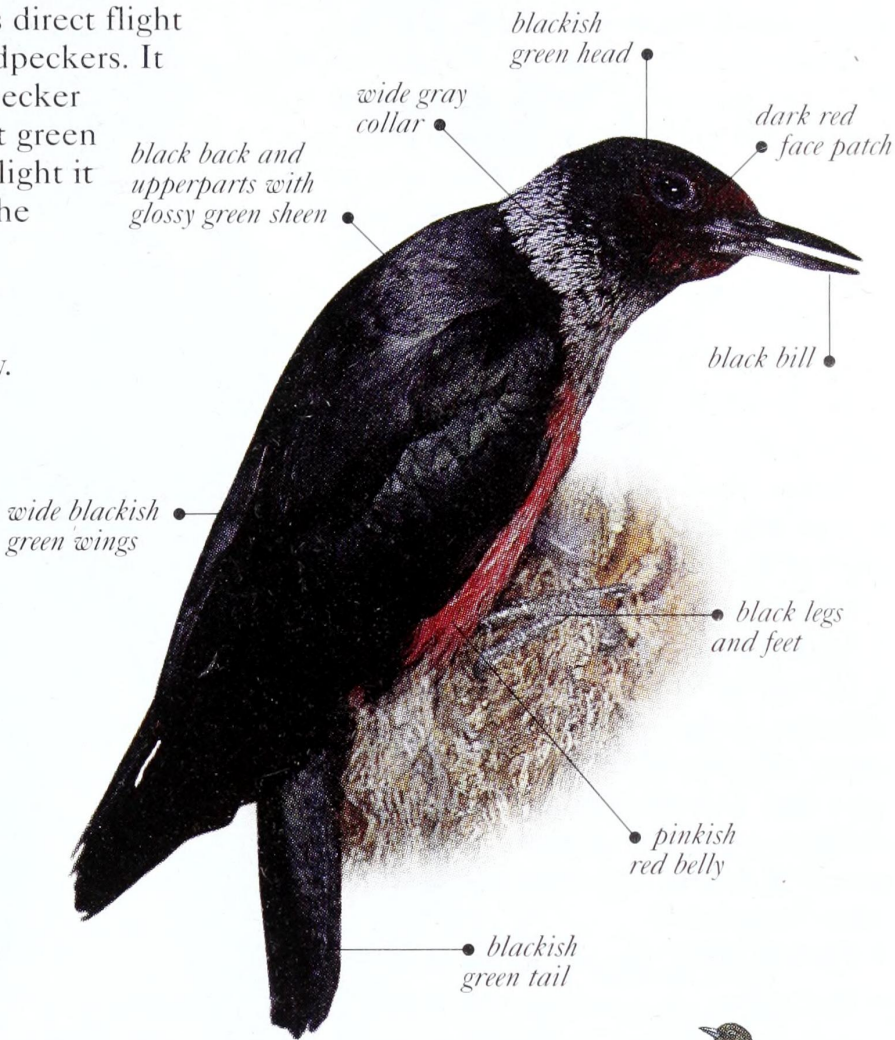
DATE _____ TIME _____ LOCATION _____

Family PICIDAE	Species <i>Melanerpes lewis</i>	Length 10–11.5 inches	Wingspan 20–21 inches
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LEWIS’S WOODPECKER

Discovered by and named for Meriwether Lewis of the Lewis and Clark expedition of 1803–1806, this bird often is mistaken for a crow in flight because of its overall blackish appearance and its direct flight pattern, which is unlike most woodpeckers. It is the only North American woodpecker that is mostly black with iridescent green highlights and a pinkish belly. In flight it shows a blackish green crissum. The female is similar to the male but smaller. Juveniles have a brownish head and underparts and lack the gray collar, red face, and pink belly.

- **SONG** Usually silent. Grating repetitive call of *churrr-churrr* or *chea-er*. Alarm call is *yick-yick*.
- **BEHAVIOR** Solitary or in pairs. May perch on wires to catch insects in flight, which is unusual for woodpeckers; also probes for insects in trees. Diet also includes nuts and fruits. Stores surplus food in crevice of tree in nonbreeding season, modifying acorns and nuts to fit the hole by removing the shell and shaping them. Defends cache from would-be robbers. Frequents logged areas, burns, riparian woodlands, and orchards.
- **BREEDING** Monogamous. Pairs may mate for life. Solitary nester.
- **NESTING** Incubation 13–14 days by both sexes (male at night, female during day). Altricial young stay in nest 28–34 days. Fed by both sexes. 1 brood per year.
- **POPULATION** Uncommon to fairly common. Declined in recent years, especially on northwest coast. Some individuals are nomadic. Accidental in the East.



- **FEEDERS** Visits feeders with suet and other foods.
- **CONSERVATION** Listed as a species of special concern by the National Audubon Society, but populations have appeared stable in recent decades.

Flight Pattern	
Crowlike flight with slow deliberate wing beats. Sallies from perch to take insects in flight, returning to same or nearby perch.	
Nest Identification	
Shape	Location

A few wood chips or pieces of bark • in trunks of dead or live trees or poles; often in snag of living tree • 2- to 3-inch entrance hole; 9- to 30-inch-deep cavity; 5–170 feet high • built by both sexes, but male does most of excavating • 4–9 white eggs; oval to elliptical, 1 inch in diameter.

Plumage Sexes similar	Habitat	Migration Some migrate	Weight 4.1 ounces
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DATE _____ TIME _____ LOCATION _____

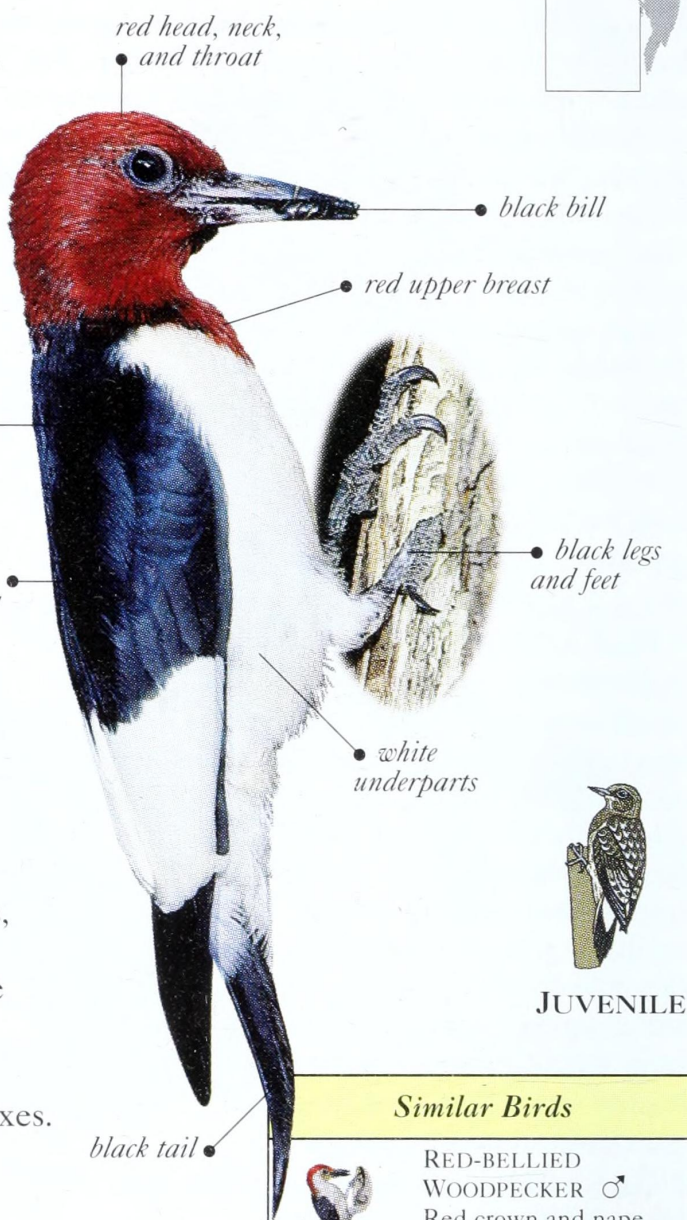
Family PICIDAE	Species <i>Melanerpes erythrocephalus</i>	Length 8.5–9.25 inches	Wingspan 16–18 inches
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RED-HEADED WOODPECKER

The ecological eastern counterpart of Lewis’s Woodpecker, this is the only woodpecker in the East with an entirely red head. Unlike many other woodpeckers, the Red-headed Woodpecker catches most of its food in flight, from the ground, or by gleaning it from tree trunks and limbs; it rarely bores holes in trees to probe for insects. The male does, however, vigorously drill its nest cavity with the aid of its mate. In flight the white underparts, white rump, and large white secondary patches contrast sharply with the black tail, wings, and back. Juveniles have brownish black upperparts and brown heads.

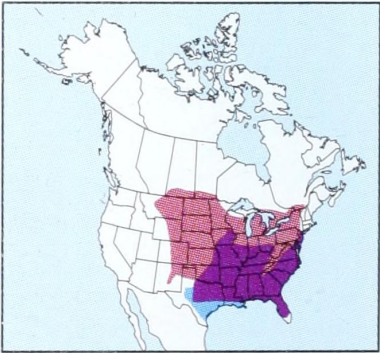
- **SONG** Fairly noisy. In breeding season has bold grating *queark* or *queer, queer, queer*. Also sounds like a chicken clucking, *kerr-uck, kerr-uck*.
- **BEHAVIOR** Solitary or in pairs. Eats various insects, spiders, millipedes, and centipedes; sometimes takes eggs and young of other birds, mice, corn, grains, various nuts, and berries. Often hunts from low perches, flying to ground to pick up prey or nut. Caches acorns and nuts, removing shells and storing the meat for winter.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 12–14 days by both sexes. Altricial young stay in nest 27–31 days. Fed by both sexes. 1–2 broods per year.
- **POPULATION** Uncommon and declining. Casual to accidental west of the Rocky Mountains.
- **FEEDERS AND BIRDHOUSES** Suet, sunflower seeds, cracked corn, raisins, nuts, and bread. Some will nest in birdhouse built for woodpeckers.
- **CONSERVATION** Listed as species of special concern by

National Audubon Society. Decline in past century due to habitat loss, collisions with automobiles, and competition for nesting cavities with European Starling. Creosote-coated utility poles are lethal to eggs and young.



Similar Birds

 RED-BELLIED WOODPECKER ♂
Red crown and nape only; barred black-and-white upperparts; white patches at bases of primaries; grayish face and underparts.



Flight Pattern



Strong flight with slow steady shallow wing beats. Sallies for flying insects, then returns to same or nearby perch.

Nest Identification

Shape 	Location 
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In snag, limb of living tree, stump, or dead tree • 1.75-inch entrance; 8–24 inches deep; 8–80 feet above ground • drilled mostly by male • 4–7 white eggs; oval to elliptical, 1 inch in diameter.

Plumage Sexes similar	Habitat 	Migration Some migrate	Weight 2.5 ounces
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DATE _____ TIME _____ LOCATION _____

Family PICIDAE

Species *Melanerpes aurifrons*

Length 8.5–10 inches

Wingspan 16–18 inches

GOLDEN-FRONTED WOODPECKER

Working together for about 8 days, the male and female drill their nest cavity 12–18 inches deep in a snag, pole, or dead limb or top of a living tree. The female looks similar to the male but lacks the red cap on the gray crown. Very similar in appearance and behavior to the eastern Red-bellied Woodpecker, it also shows a white rump patch and white patches at the bases of the primaries in flight. Juveniles have a streaked breast and lack the golden patch at the upper mandible base, the golden yellow nape, and the male's red cap.

• **SONG** Noisy trill, *churrrrrrr-churrrrrrr*; flickerlike *kek-kek-kek-kek-kek-kek* or *check, check*.

• **BEHAVIOR** Solitary or in pairs. Prefers dry forests, mesquite brushlands, and cottonwoods in riparian edges. Often forages low on tree and on ground. Eats insects, spiders, wild berries, fruits, nuts, acorns, corn, and grains. Caches food for winter in bark crevices.

• **BREEDING** Monogamous. Solitary nester.

• **NESTING** Incubation 12–14 days by both sexes (male at night, female during day). Altricial young stay in nest 30 days. Fed by both sexes. 1–2 broods per year.

• **POPULATION** Common to fairly common. Stable. Common in Texas towns. Accidental elsewhere. East Coast reports may be Red-bellied Woodpeckers with abnormal amounts of yellow.

• **FEEDERS** Suet, corn, nuts, and sunflower seeds.

• **CONSERVATION** Called a “pole pest” by utility and railroad companies, because it found the pine of poles easier to excavate than native trees; many were killed on sight.

Flight Pattern



Alternates series of shallow rapid wing beats with short glides, producing a series of undulations as it progresses.

Nest Identification

Shape  ¹  ² Location    

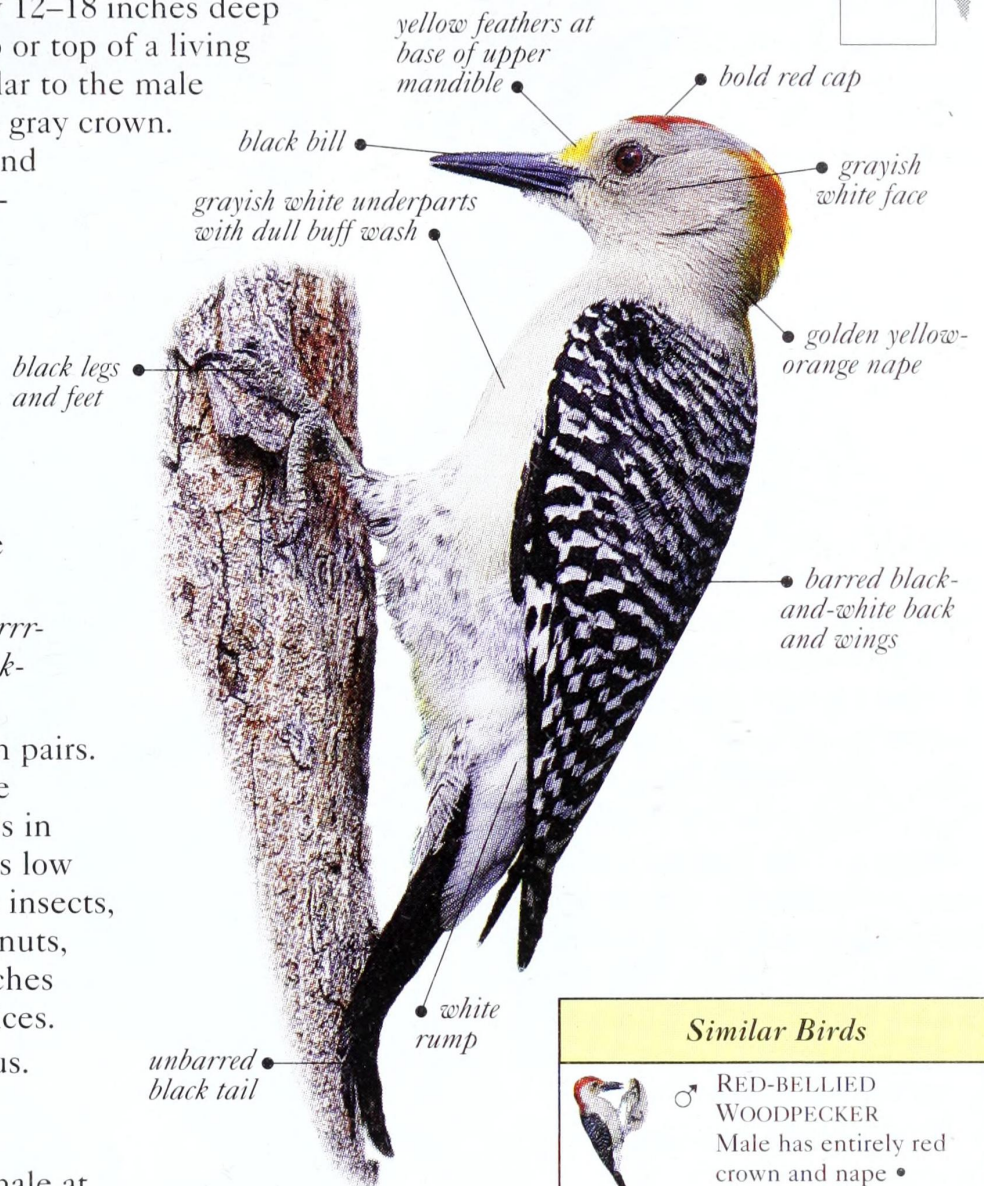
Sometimes a few bark chips • in cavity of dead or live tree, stump, utility pole, fence post, or man-made structure 3–25 feet above ground • often uses same cavity year after year • built by both sexes • 4–7 white eggs; oval to elliptical, 1 inch long.

Plumage Sexes similar

Habitat   

Migration Nonmigratory

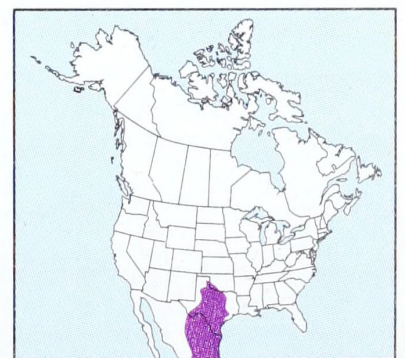
Weight 3.0 ounces



Similar Birds



♂ **RED-BELLIED WOODPECKER** Male has entirely red crown and nape • female has red on nape only • both have lightly barred rump; barred tail; reddish wash on center of lower belly.



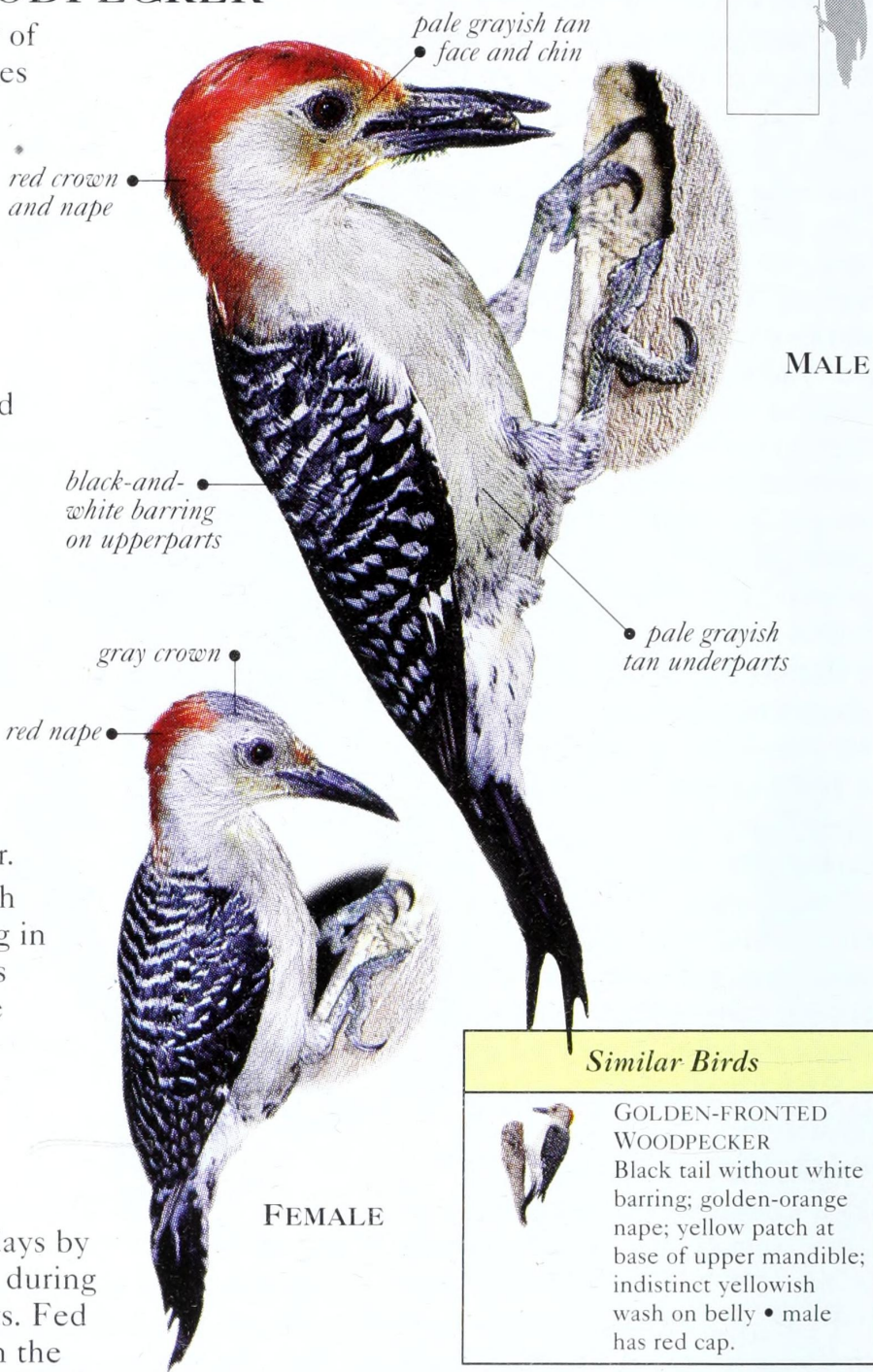
DATE _____ TIME _____ LOCATION _____

Family PICIDAE	Species <i>Melanerpes carolinus</i>	Length 9–10.5 inches	Wingspan 15–18 inches
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RED-BELLIED WOODPECKER

This noisy common woodpecker of eastern US forests and forest edges has adapted to different habitats, from southern pine forests to northern hardwoods, scattered trees, and urban parks. The bird's upperparts have black-and-white barring in a zebra pattern. The "red belly" that gives the bird its name is a reddish wash low on the belly and between the legs that is actually difficult to see in the field. In flight it shows a white rump, white patches at the base of the primaries, and white-barred central tail feathers. Juvenile birds are similar to adults but have a gray-brown head.

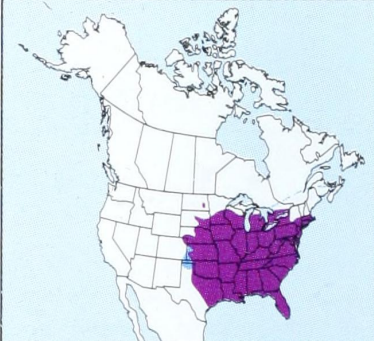
- **SONG** Quavering *churr-churr* or *querrr-querrr* and abrupt *chuck, chuck, chuck*, softer than Golden-fronted Woodpecker.
- **BEHAVIOR** Conspicuous, with noisy vocalizations and drumming in breeding season. Nests and roosts nightly in tree cavities. Eats wide variety of fare, including insects, fruits, vegetables, seeds, and sap from sapsucker drill wells.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 11–14 days by both sexes; male at night, female during day. Young stay in nest 22–27 days. Fed by both sexes. 1 brood per year in the North; 2–3 broods per year in the South.



Similar Birds



GOLDEN-FRONTED WOODPECKER
Black tail without white barring; golden-orange nape; yellow patch at base of upper mandible; indistinct yellowish wash on belly • male has red cap.



- **POPULATION** Common to fairly common. Expanding northward in recent decades to southern border of Canada. Seems stable overall; may be increasing slightly.
- **FEEDERS** Nuts, sunflower seeds, peanut butter, and suet.

Flight Pattern



Undulating flight with fairly rapid wing beats interspersed with periods of roller-coaster flight with wings folded.

Nest Identification

Shape  Location  

In tree 5–70 feet above ground • built by both sexes • sometimes uses abandoned holes of other woodpeckers • 3–8 white eggs, 1 inch in diameter.

Plumage Sexes differ	Habitat   	Migration Nonmigratory	Weight 2.4 ounces
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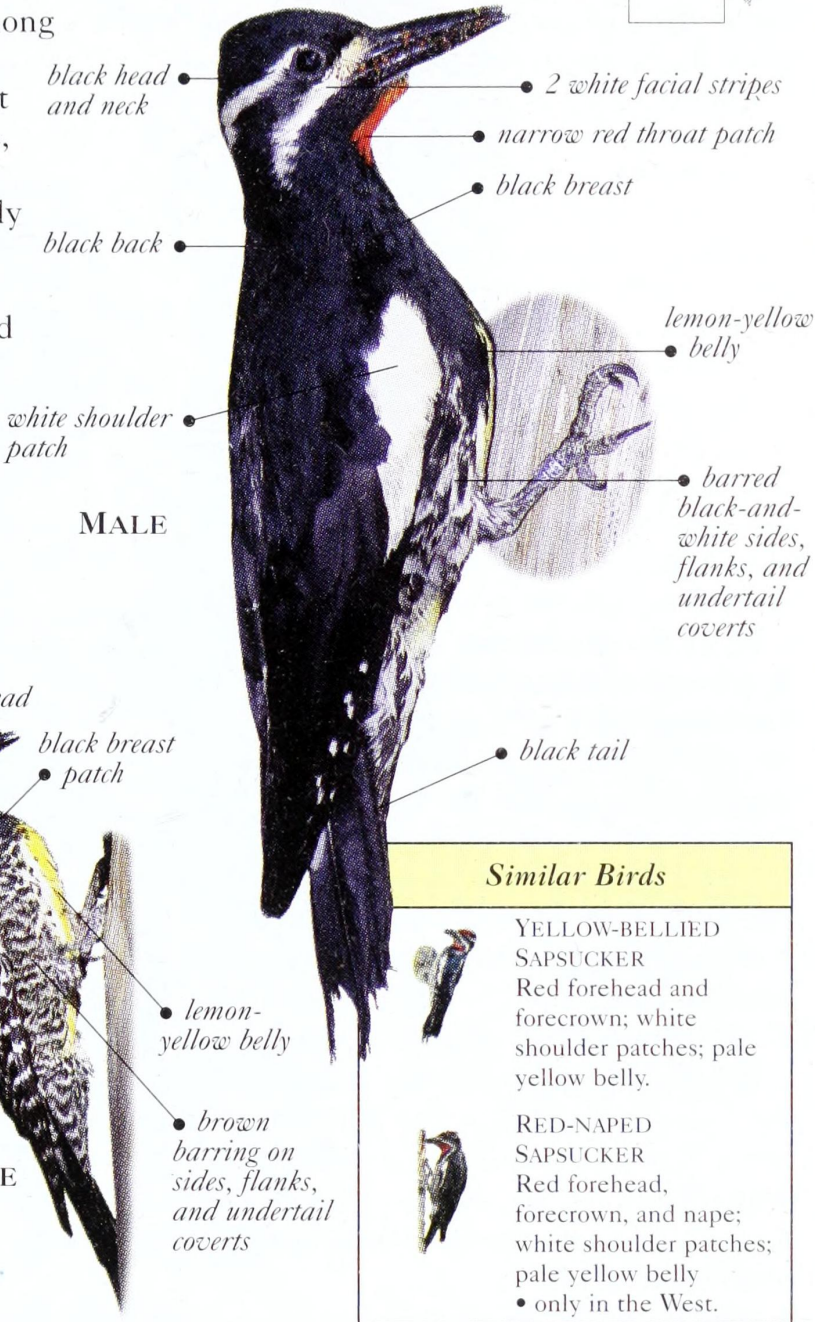
DATE _____ TIME _____ LOCATION _____

Family PICIDAE	Species <i>Sphyrapicus thyroideus</i>	Length 9 inches	Wingspan 17 inches
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WILLIAMSON’S SAPSUCKER

The male and female plumages are so different that they once were thought to be of different species. This shy bird makes its home among the coniferous trees in the mountains of western North America. In strong sunlight the male’s head, neck, back, breast, wings, and tail shine with a green iridescent sheen. Males in flight often appear entirely black with a white rump and white shoulder patches. Females in flight show brown upperparts with whitish barring and a white rump. Juveniles are similar to adults, but the juvenile male has a white throat, and the juvenile female lacks the black breast patch.

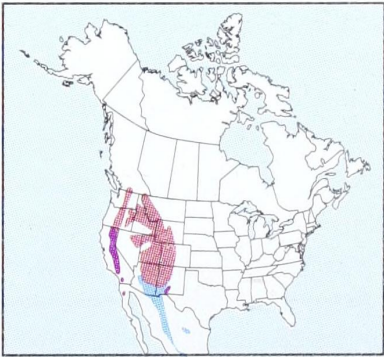
- **SONG** Often quiet. Loud shrieking *cheeeeer* is similar to Red-tailed Hawk’s call. Also makes trilling *k-k-r-r-r-r-r* and soft nasal *whang* or *wheather*. Males make staccato tapping sounds.
- **BEHAVIOR** Solitary or in pairs. Shy and wary. Bores holes in trees to drink sap, and picks insects off tree bark. Eats various insects and their larvae, spiders, berries, and cambium. Courtship involves mutual head bobbing, crest raising, holding wings above back, and fluttering mothlike flights.
- **BREEDING** Monogamous. Small, very loose colonies.
- **NESTING** Incubation 12–14 days by both sexes (male at night, female during day). Altricial young stay in nest 21–35 days. Fed by both sexes. 1 brood per year.



Similar Birds

YELLOW-BELLIED SAPSUCKER
Red forehead and forecrown; white shoulder patches; pale yellow belly.

RED-NAPED SAPSUCKER
Red forehead, forecrown, and nape; white shoulder patches; pale yellow belly
• only in the West.



Flight Pattern

Alternates between several rapid shallow wing beats and periods of short glides.

Nest Identification

Shape

Location

No lining except a few bark chips • in dead or live conifer or aspen 3–60 feet above ground; excavation takes 3–4 weeks; excavates new nest annually but often uses same tree as previous year • built by male • 3–7 porcelain-white eggs; oval to elliptical, 0.9 x 0.7 inches.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 1.7 ounces
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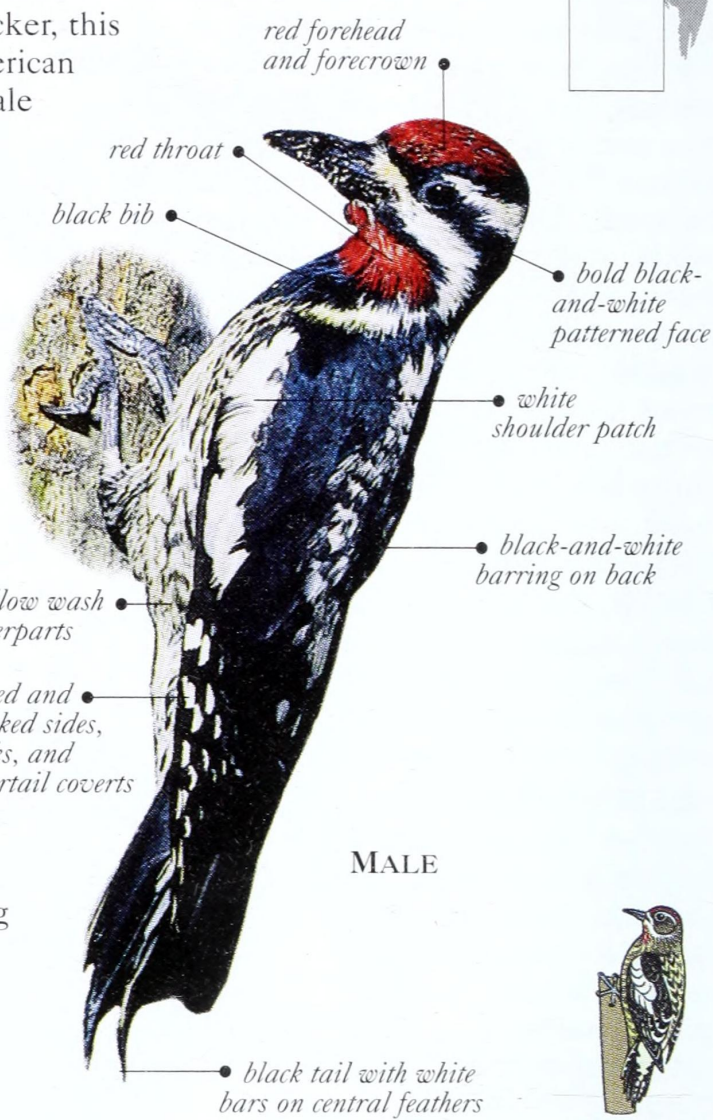
DATE _____ TIME _____ LOCATION _____

Family PICIDAE	Species <i>Sphyrapicus varius</i>	Length 8–9 inches	Wingspan 16–18 inches
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YELLOW-BELLIED SAPSUCKER

Eastern counterpart to the Red-naped Sapsucker, this is the most widespread of the four North American sapsuckers. In breeding season male and female perform continual loud drumming duets, including ritual tapping at the nest entrance. The female is similar to the male but has a white throat. In flight birds show a white rump and white shoulder patches. Juveniles have brown mottling on the chest, head, and upperparts, and a white shoulder patch but lack the bright head and throat colors.

- **SONG** Often silent. Low, growling nasal *mew* sounds somewhat catlike. Alarm call of *cheee-er, cheeee-er*. During courtship display cries *hoih-hoih*. Males make staccato drumming sounds.
- **BEHAVIOR** Solitary or in pairs. Bores series of small holes, often in horizontal rows, in trees to drink the sap that collects. Eats insects attracted to drill wells, plus fruits, berries, and tree buds. Guards wells from other birds, including hummingbirds, and small mammals. Nests in soft deciduous trees, often near water.
- **BREEDING** Monogamous. Small, very loose colonies.
- **NESTING** Incubation 12–13 days by both sexes (male at night, female during day). Altricial young stay in nest 25–29 days; fed mixture of sap and insects by both sexes. Taught sapsucking by both sexes. 1 brood per year.
- **POPULATION** Common to fairly common in deciduous and mixed forests. Accidental to rare in West during migration and winter.
- **FEEDERS** In winter, mixture of suet and sugar. Will eat sweets, like jelly or doughnuts. Drinks sugar water from hummingbird feeders.



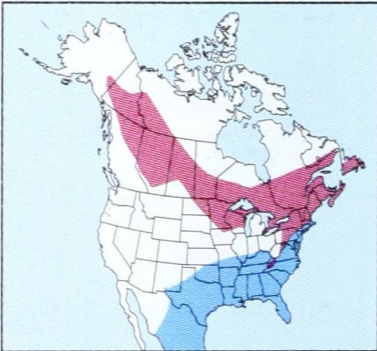
MALE

JUVENILE

Similar Birds



RED-NAPED SAPSUCKER
Red on nape.
• only in the West.



Flight Pattern



Alternates several rapid shallow wing beats with short glides, producing undulating flight as the bird progresses.

Nest Identification



Usually no materials except bark chips • in dead or live tree (prefers live tree); 6–60 feet above ground • built by both sexes in 7–10 days • 1.25 x 1.6-inch entrance hole; 5 x 14-inch gourd-shaped cavity • 4–7 white eggs; oval to elliptical, 0.9 x 0.7 inches.

Plumage Sexes similar	Habitat  	Migration Migratory	Weight 1.8 ounces
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DATE _____ TIME _____ LOCATION _____

Family PICIDAE	Species <i>Picoides scalaris</i>	Length 7.25 inches	Wingspan 11–12 inches
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LADDER-BACKED WOODPECKER

This small bird the size of a Downy Woodpecker inhabits deserts, arid scrub, riparian woodlands, piñon-junipers, and pine-oaks – the arid woodlands and scrublands of the Southwest. It is the only small woodpecker in most of its range, and it is well adapted to smaller trees, shrubs, and cacti, the dominant woody plants in the rugged country it calls home. Note the black-and-white barred back, the profusion of white spotting and barring on the wings and shoulders, and the buffy gray underparts.

• **SONG** Call note is a clear high-pitched *pik*, similar to Hairy Woodpecker; descending whinny.

• **BEHAVIOR** Solitary or in pairs. Sexes forage differently. Males tend to forage lower and on the ground, probing for insects, especially ants; females forage higher in the vegetation and glean insects from bark. Both readily eat fruits of cactus. Often seen in towns and rural areas.

• **BREEDING** Monogamous.

• **NESTING** Incubation 13 days by both sexes. Young altricial; estimated to fledge nest at 20–25 days. Fed by both sexes. 1 brood per year.

• **POPULATION** Common in arid and semiarid brushlands.

• **FEEDERS** Attracted to birdbaths, pools, and other water elements, and feeders with suet, peanut butter, corn, and sunflower seeds.

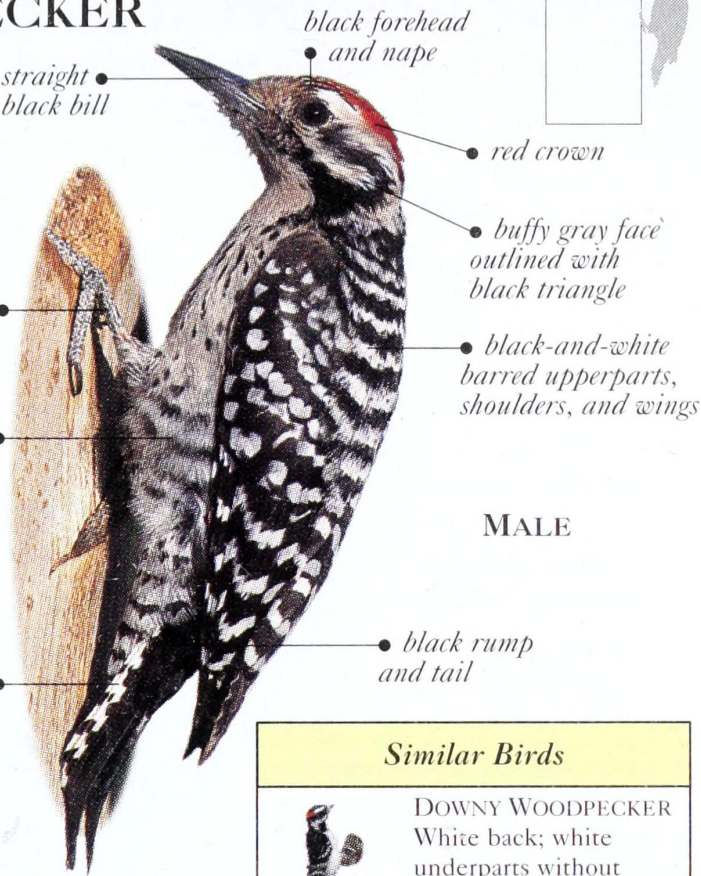
Flight Pattern

Series of rapid shallow wing beats alternating with short glides.

Nest Identification

Shape Location

Excavated cavity lined with chips • in upper part of agave, saguaro, or other huge cactus; in dead trees or branches; in top of woody shrub, 3–30 feet above ground • unknown which sex digs cavity • 2–7 white eggs; oval to elliptical, 0.8 x 0.6 inches.



MALE

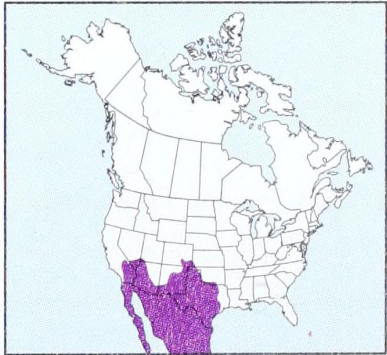


FEMALE

Similar Birds

DOWNY WOODPECKER
White back; white underparts without spotting; white outer tail feathers with black spotting; black ear patch • male has red patch on back of head.

NUTTALL'S WOODPECKER
Black face with narrow white supercilium curving down behind auriculars and white mustache; white underparts; voice differs • male has red on back of crown only • south California range barely overlaps • limited range in the West.



Plumage Sexes differ	Habitat	Migration Nonmigratory	Weight 1.1 ounces
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DATE _____ TIME _____ LOCATION _____

Family PICIDAE	Species <i>Picoides pubescens</i>	Length 6.75–7 inches	Wingspan 11–12 inches
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DOWNY WOODPECKER

The smallest woodpecker in North America is found across most of the continent, ranging from coast to coast and from the northern tree line south to the Gulf and the deserts and dry grasslands just north of the Mexican border. The combination of small size, white back, and small stubby bill distinguishes this common woodpecker. The female differs from the male only in that it lacks the red occipital patch. In the Pacific Northwest these birds show pale brownish gray underparts and back.

- **SONG** Downslurred soft high-pitched whinny. Call is flat *pik* or *pick* and not as high-pitched as that given by the Hairy Woodpecker.
- **BEHAVIOR** Both sexes drum on dead limbs or tree trunks with good resonating qualities or on utility poles, buildings, or other man-made objects to advertise their presence and proclaim territorial rights. Eats primarily insects and their larvae and eggs, but also takes seeds, nuts, berries (including those of poison ivy), spiders, and snails. The agility that comes with its small size allows it to feed on smaller branches and farther out on their tips than other woodpeckers. Roosts in cavities at night.
- **BREEDING** Monogamous.
- **NESTING** Incubation 12 days by both sexes (male at night). Young stay in nest 20–25 days. Fed by both sexes. 1 brood per year, possibly 2 in the South.
- **POPULATION** Widespread and common. Species can be found almost anywhere there are trees.



Similar Birds



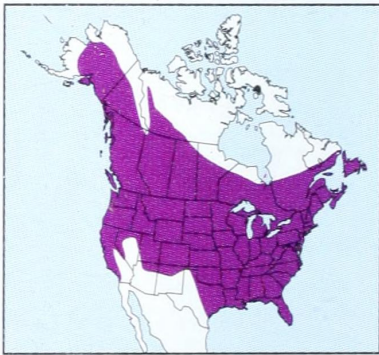
HAIRY WOODPECKER
Larger; longer bill; white outer feathers of black tail lack spots or bars; call is *peek*.

Flight Pattern



Undulating flight with rapid wing beats alternating with pauses on folded wings, which produces bouncing flight.

- **FEEDERS AND BIRDHOUSES** Will come to feeders for suet, peanut butter, sunflower seeds, and bread. Will nest in bird box designed for it.



Nest Identification

Shape   Location    

Excavated in dead tree trunk or branch; pair usually leaves chips in bottom • usually 12–30 feet above ground, sometimes 5–60 feet • built by both sexes • 3–7 white eggs, 0.8 inch in diameter.

Plumage Sexes similar	Habitat   	Migration Nonmigratory	Weight 1.0 ounce
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DATE _____ TIME _____ LOCATION _____

Family PICIDAE	Species <i>Picoides villosus</i>	Length 8.5–10.5 inches	Wingspan 15–17.5 inches
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HAIRY WOODPECKER

The Hairy Woodpecker and the Northern Flicker are the two most widely distributed woodpeckers in North America. This woodpecker is found almost anywhere forests exist. Similar in appearance to the smaller Downy Woodpecker, it is noisier but less confiding in humans and does not often allow a close approach before it flies away. Learning its high-pitched *peek* call note will make this shy bird easier to locate. Look for a white back when bird is in flight. The only difference between male and female birds is that the female lacks the red occipital patch. Birds in the Pacific Northwest show pale brownish gray underparts.

- **SONG** Loud downslurred whinny reminiscent of Belted Kingfisher’s rattle. Call is bold, grating, sharp *peek*.
- **BEHAVIOR** Roosts in cavities at night. Feeds primarily on wood-boring insects and their larvae, other insects, nuts, seeds, and from the drill wells of sapsuckers. Both sexes drum to advertise presence and maintain territory.
- **BREEDING** Monogamous. Some individuals known to remain with same mate for at least 4 years.
- **NESTING** Incubation 11–15 days by both sexes (male at night). Altricial young remain in nest 28–30 days. Fed by both sexes. 1 brood per year unless nest is robbed or disturbed.
- **POPULATION** Fairly common, but sometimes local, over most of range. Sometimes more common in northern hardwood and boreal forests; rare in the Deep South and in Florida.

long black bill is nearly as long as head is deep

white underparts

black tail with 3 entirely white outermost feathers on each side

red occipital patch

white face with black malar mark and wedge-shaped postocular stripe

black nape and shoulders

black wings with white spotting/barring



Similar Birds



DOWNY WOODPECKER
Smaller; shorter, stubby bill (length much less than depth of head); white outer tailfeathers with dark spots/bars.



THREE-TOED WOODPECKER
Black-and-white barring on back; dark barred sides • male has yellow crown.

Flight Pattern



Undulating flight with rapid wing beats alternating with pauses on folded wings, which produces bouncing flight.

Nest Identification

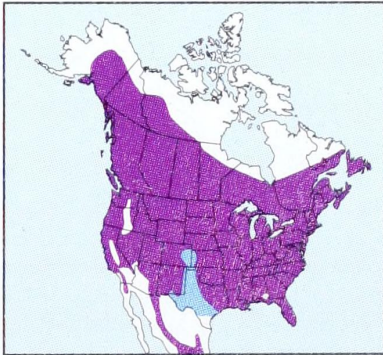
Shape



Location



4–60 feet above ground • built by both sexes • 3–6 white eggs, 1 inch in diameter.



Plumage Sexes differ	Habitat	Migration Most do not migrate	Weight 2.5 ounces
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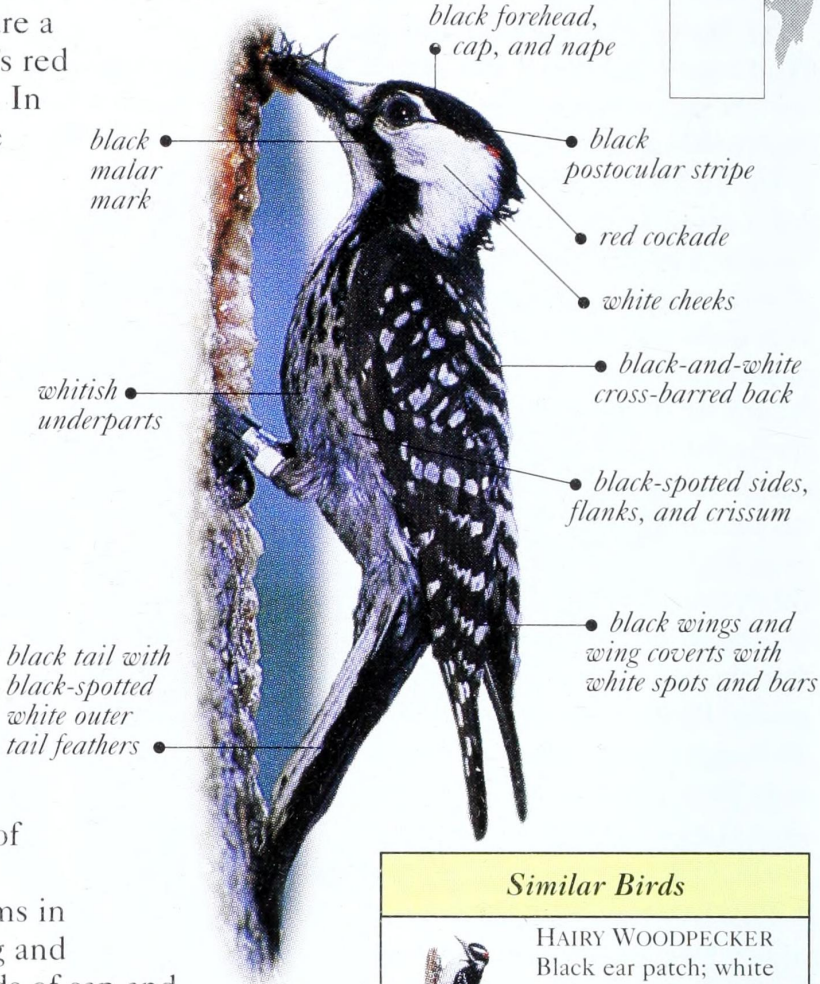
DATE _____ TIME _____ LOCATION _____

Family PICIDAE	Species <i>Picoides borealis</i>	Length 8.5 inches	Wingspan 16 inches
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RED-COCKADED WOODPECKER

The white cheeks of this woodpecker are a more accurate field mark than the male's red cockade, which is indistinct in the field. In summer, the male begins drilling a large roosting and nesting cavity, which takes more than a year to complete. These cavities may be used for forty to fifty years. The Red-cockaded is unique among North American woodpeckers because it requires a living pine tree for its nesting cavity. When the cavity is drilled, sap and resins flow around the entrance, serving as a predator guard. Females lack the small red cockade.

- **SONG** Noisy. Call is *yank, yank*, somewhat like White-breasted Nuthatch. Also has hoarse *sripp* and high-pitched *tsick*.
- **BEHAVIOR** Gregarious. In clans of 3–7, consisting of mated pair, current young, and unmated adult helper(s). Forages and drills for insects on trunks of pine trees, sometimes circling tree as it climbs. In summer may feed on earworms in corn. Also eats berries and nuts. Nesting and roosting holes are marked by long strands of sap and resin oozing from inch-wide drill holes in rows above and below them; drill holes are maintained by clan who may remove bark from around hole.
- **BREEDING** Monogamous. Cooperative breeding in small colonies or clans. Mates for life.
- **NESTING** Incubation 10–15 days by both sexes. Young altricial; stay in nest 22–29 days, fed by both sexes and helpers. 1 brood per year.
- **POPULATION** Uncommon. Declined in 20th century.
- **FEEDERS AND BIRDHOUSES** Comes to mixture of suet and water. Will accept artificial nest cavities inserted into pine trees.



Similar Birds



HAIRY WOODPECKER
Black ear patch; white back; unmarked white underparts; unmarked white outer tail feathers; voice differs • male has red nuchal patch.



DOWNY WOODPECKER
Smaller in size; black ear patch; white back; unmarked white underparts; voice differs • male has red nuchal patch.

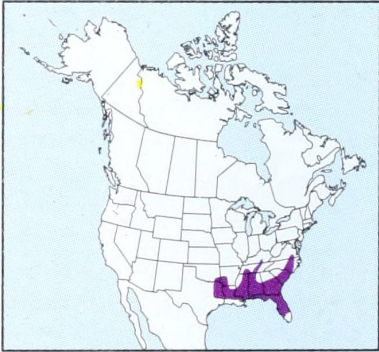
Flight Pattern

Alternates several rapid wing beats with short glide with wings partially folded to sides, producing up-and-down flight.

Nest Identification

Shape	Location
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• **CONSERVATION** Has been designated an endangered species as a result of the over-cutting of mature pine forests as well as by fire suppression in the fire-maintained ecosystem of the Southeast.



Dried wood chips • in live mature pine tree, often infected with heart fungus, 12–70 feet above ground • built by male and extra birds with some help from female • 2–5 white eggs; oval to elliptical, 1.0 x 0.75 inches.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 1.6 ounces
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DATE _____ TIME _____ LOCATION _____

Family PICIDAE	Species <i>Picoides tridactylus</i>	Length 8–9 inches	Wingspan 14–16 inches
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THREE-TOED WOODPECKER

Formerly called Northern Three-toed Woodpecker. Black-and-white barring on sides and flanks, with black-and-white-barred back, set it apart from similar species. Barring on the back varies with geography, with Rocky Mountain birds having almost white backs and birds in the Northeast having mostly black backs with thin white bars. Not as active as many birds in its family; easily overlooked, spending long periods of time simply clinging to the trunk of a tree. The female is similar to the male but has a speckled crown, rather than a yellow cap. Juveniles are duller, with yellow spotting on the crown which later disappears in females.

- **SONG** Generally silent. Calls soft; has a timid squeaking sound reminiscent of the *mew* of a Yellow-bellied Sapsucker; also a soft *pik*.
- **BEHAVIOR** Tame. Slow and deliberate. Peels long strips of bark off trees to find wood-boring insects. Eats various insects and their larvae, spiders, some berries, and cambium. Frequents coniferous forests, often in mountains. Attracted to burned forests; often feeds on downed timber and rotting logs. Females tend to forage higher in trees than males.
- **BREEDING** Monogamous. Pair bond may last several years.
- **NESTING** Incubation 12–14 days by both sexes; male incubates at night. Young altricial; stay in nest 22–26 days, fed

by both sexes. 1 brood per year.

- **POPULATION** Common to fairly common, especially in burned-over forest.
- **CONSERVATION** Vulnerable to habitat loss due to logging operations.

Flight Pattern

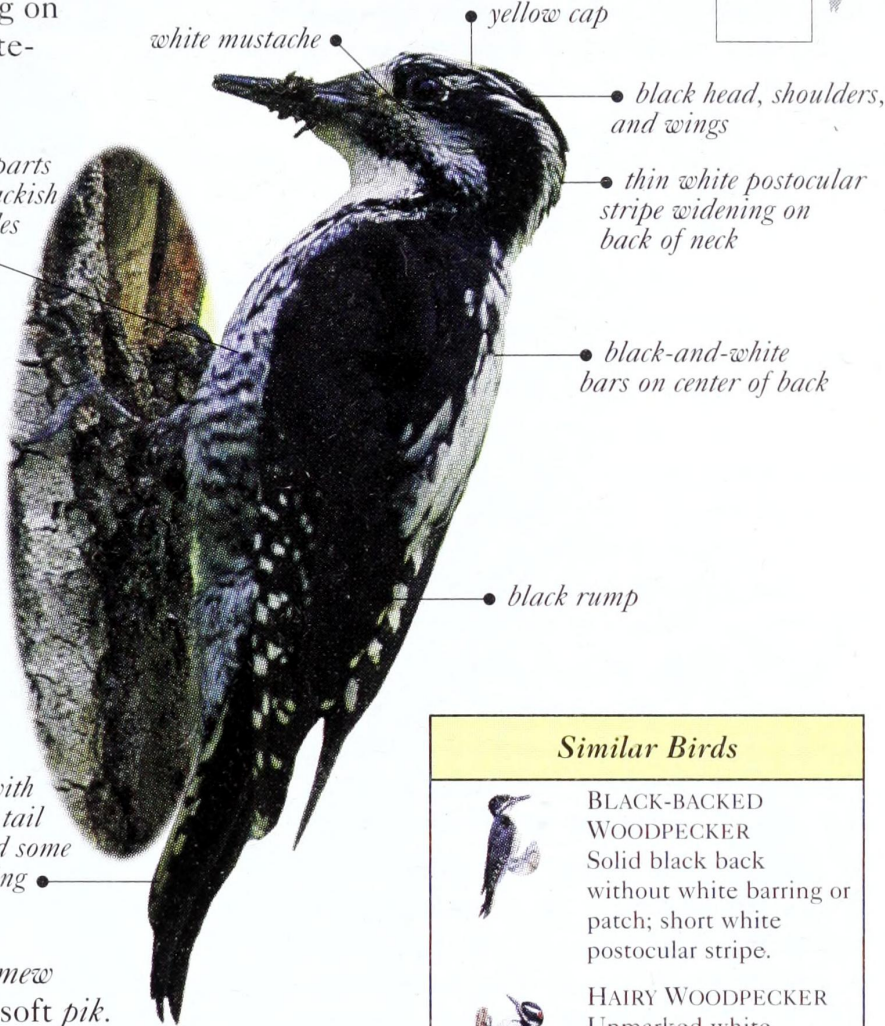


Alternates several rapid wing beats with short glide with wings partially folded to sides.

Nest Identification

Shape  Location 

Usually no materials except a few bark chips • in stump or tree, 5–45 feet above ground • built by both sexes • 3–6 white eggs; subelliptical, 0.9 x 0.75 inches.



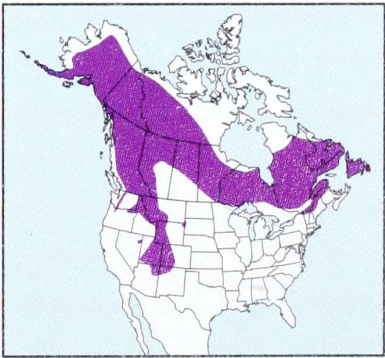
Similar Birds



BLACK-BACKED WOODPECKER
Solid black back without white barring or patch; short white postocular stripe.



HAIRY WOODPECKER
Unmarked white underparts; lacks barred sides and flanks; white back; black crown; unspotted white outer tail feathers • male has red occipital patch • rarely, juvenile may have orange to yellow crown but never has barred sides and flanks.



Plumage Sexes similar	Habitat 	Migration Nonmigratory	Weight 2.5 ounces
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DATE _____ TIME _____ LOCATION _____

Family PICIDAE	Species <i>Picoides arcticus</i>	Length 9.5 inches	Wingspan 17 inches
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BLACK-BACKED WOODPECKER

Formerly called the Black-backed Three-toed Woodpecker, this species shares the anatomical distinction of three toes with the Three-toed Woodpecker. It is closely related to the latter species but is distinguished by its black back, the lack of a long white postocular stripe and the male's more solidly yellow cap. Both species often leave behind rows of bark-stripped conifers in the boreal pine forests of North America they frequent. Both are attracted to burned-over forests, areas of windfall, and swampy areas with standing dead trees. The female has a solid black head, without the yellow cap of the male.

- **SONG** Often silent and easily overlooked. Call is a single-note, abrasive sharp *pick* or *chik*, similar to Three-toed or Hairy Woodpeckers, but lower in pitch. Sometimes repeated rapidly in a series.
- **BEHAVIOR** Solitary or in pairs. Tame; deliberate in its movements. Somewhat nomadic and may erupt in numbers where insect outbreaks provide abundant food source. Peels large pieces of bark off trunk of tree to find wood-boring insects. Eats a variety of insects, including ants; also takes spiders, cambium, wild fruits, and nuts.
- **BREEDING** Monogamous.
- **NESTING** Incubation 12–14 days by both sexes, but mostly by female. Young altricial; stay in nest 25 days, fed by both sexes. 1 brood per year.
- **POPULATION** Uncommon to fairly common; sometimes local.

Flight Pattern



Alternates between several rapid wing beats and short glides with wings partially folded to sides.

Nest Identification

Shape  Location 

In the East, may wander south of breeding range during the winter.

- **CONSERVATION** Vulnerable to habitat loss due to logging operations.

Cavity lined with chips • excavated in dead stubs or trunks of dead trees, 2–80 feet above ground, usually within opening in forest; sloped entry used as doorstep • built by both sexes, mostly by male • 2–6 white eggs; subelliptical, 0.9 x 0.75 inches.



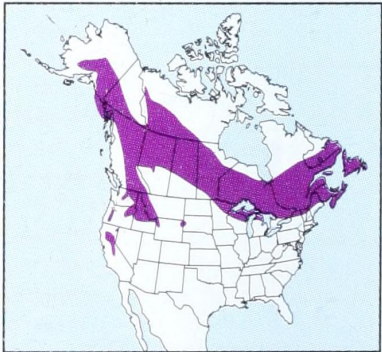
Similar Birds



THREE-TOED WOODPECKER
Black-and-white barring down center of back; much longer white postocular stripe.



HAIRY WOODPECKER
White back; wider, longer white postocular stripe; unmarked white underparts, including sides and flanks; white spots and barring on wings and wing coverts; • male has red occipital patch.



Plumage Sexes similar	Habitat 	Migration Nonmigratory	Weight 2.5 ounces
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DATE _____ TIME _____ LOCATION _____

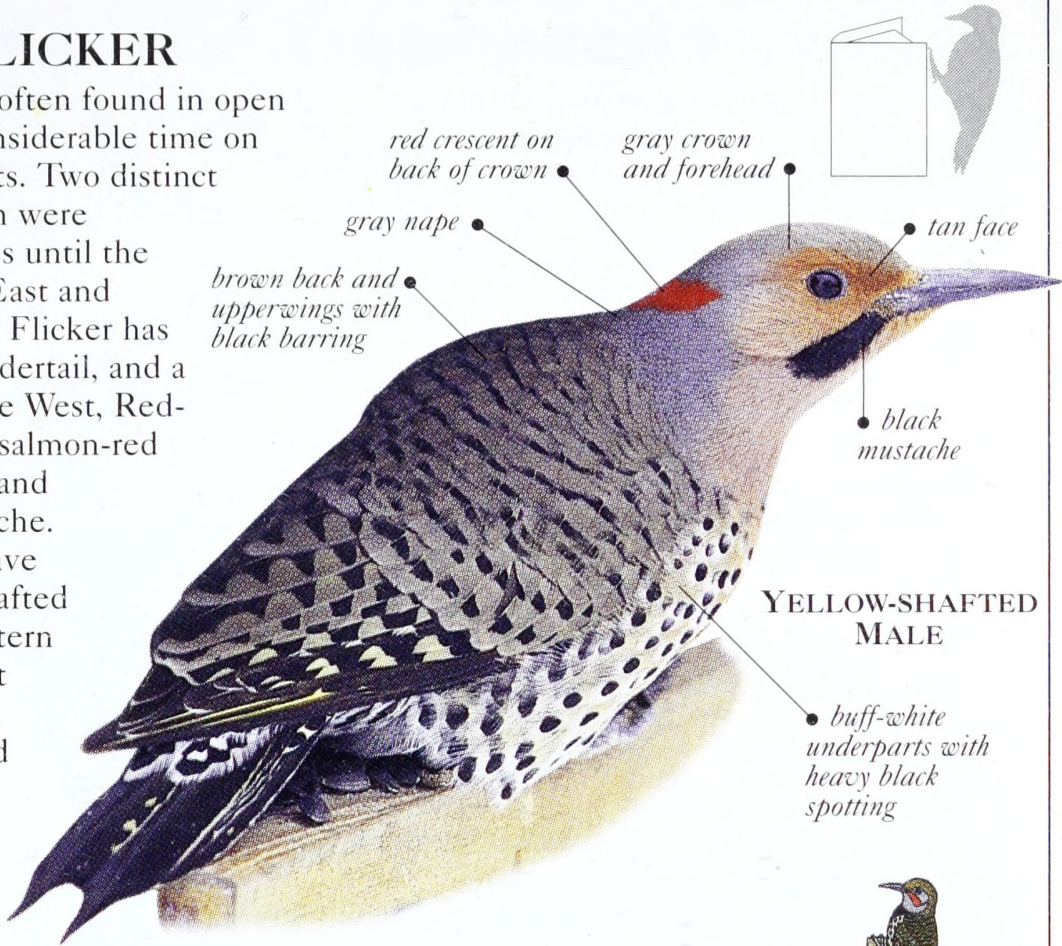
Family PICIDAE	Species <i>Colaptes auratus</i>	Length 12.75–14 inches	Wingspan 19–21 inches
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NORTHERN FLICKER

This large woodpecker is often found in open spaces where it spends considerable time on the ground foraging for ants. Two distinct geographical groups, which were considered separate species until the early 1980s, occur: in the East and Northwest, Yellow-shafted Flicker has yellow underwings and undertail, and a black mustache; and, in the West, Red-shafted Flicker has bright salmon-red to red-orange underwings and undertail, and a red mustache. Although the two forms have similar bodies, the Red-shafted form shows a different pattern on its head with colors that are basically reversed from those of the Yellow-shafted form: a gray face and brown forehead, crown, and nape with no red crescent. Females are similar to males, lacking only the mustache. All birds have brown backs and wings with dark barring, a black crescent bib, buff to grayish underparts with heavy spotting, and a white rump patch.

- **SONG** In breeding season, long bold repeated *wick-er, wick-er, wick-er* notes. Year-round, makes single loud *klee-yer* or *clearrrr*.
- **BEHAVIOR** Most terrestrial North American woodpecker. An analysis of the contents of a single flicker stomach revealed 3,000 ants. Spring courtship displays are noisy and animated, as pair bonds are established and rivals are driven away.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 11–16 days by both sexes. Altricial young stay in nest 4 weeks, fed by both sexes. Usually 1 brood per year, sometimes 2 in the South.
- **POPULATION** Yellow-shafted form common. Red-shafted form is fairly common to common. Both thought to be declining.

- **BIRDHOUSES** Nests in houses and boxes.
- **CONSERVATION** Declining. Introduced European Starlings successfully compete for nest sites.



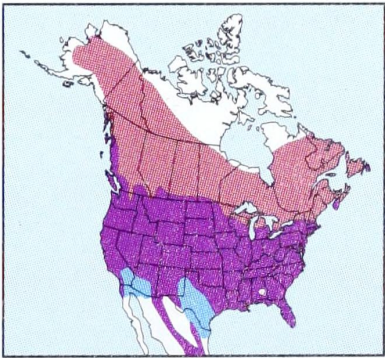
YELLOW-SHAFTED MALE

RED-SHAFTED MALE

Similar Birds



GILDED FLICKER
Limited range but overlaps with Red-shafted form; like a smaller, more washed out Red-shafted Flicker; yellow wash under wings and tail
• only in the West.



Flight Pattern



Several rapid wing beats followed by a pause with wings folded at sides produces up-and-down flight pattern.

Nest Identification

Shape 

Location 

In snag, poles, posts, buildings, nest boxes, and banks (sometimes driving out the kingfisher or Bank Swallow tenants) • 6–20 feet above ground, sometimes higher • built by both sexes • sometimes uses same nest hole for second season • 3–12 white eggs; oval to short-oval; 1.1 x 0.8 inches.

Plumage Sexes differ	Habitat 	Migration Most do not migrate	Weight 4.8 ounces
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DATE _____ TIME _____ LOCATION _____

Family PICIDAE	Species <i>Dryocopus pileatus</i>	Length 16.5–19.5 inches	Wingspan 27–30 inches
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PILEATED WOODPECKER

These crow-sized woodpeckers drum on trees to claim territory and attract a mate; the loud heavy sound is as if the tree is being hit with a wooden mallet. Each member of a mated pair excavates several roosting cavities and may retire for the evening in one of them. The male roosts in the current nesting cavity before the eggs are laid and afterward incubates them there at night. In flight both sexes show a large white patch at the base of the primaries and they also show white underwing linings.

• **SONG** Location call to mate is a deliberate loud *cuck, cuck, cuck*. Both sexes have a call of *yucka, yucka, yucka*, similar to a flicker, that changes in pitch, loudness, and in its cadence.

• **BEHAVIOR** Solitary or in pairs. Loud and often conspicuous. Bores deep into trees and peels off large strips of bark for food. Also digs on ground and on fallen logs. Eats ants, beetles, and a variety of other insects, especially tree-boring ones, acorns, beechnuts, seeds of tree cones, nuts, and various fruits.

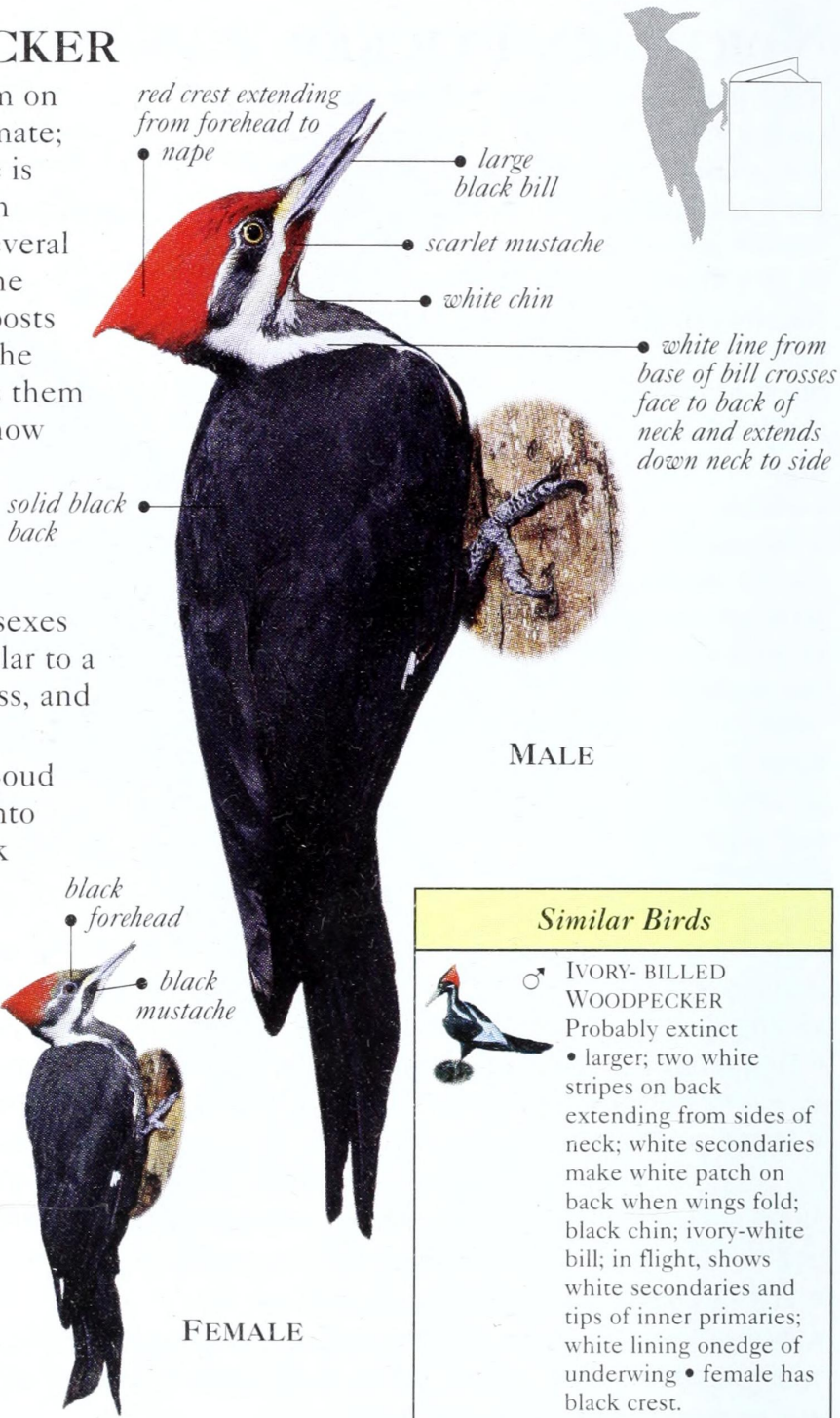
• **BREEDING** Monogamous.

• **NESTING** Incubation 15–18 days by both sexes, mostly male. Young altricial; brooded by female; stay in nest 26–28 days, fed by both sexes. 1 brood per year.

• **POPULATION** Common to fairly common in the Southeast; uncommon and local elsewhere.

• **FEEDERS** Mixture of melted suet, pecans, and walnut meats.

• **CONSERVATION** Vulnerable to habitat loss and forest fragmentation. Sharp decline in early 20th century, but has adapted to habitat changes. Competes for excavated nesting cavities with European Starlings.

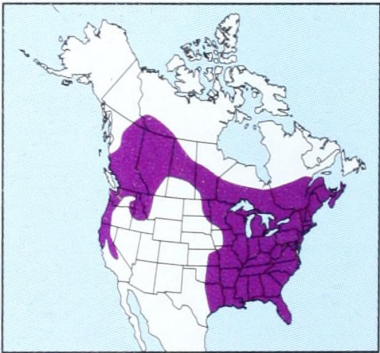


MALE

FEMALE

Similar Birds

♂ **IVORY-BILLED WOODPECKER**
Probably extinct
• larger; two white stripes on back extending from sides of neck; white secondaries make white patch on back when wings fold; black chin; ivory-white bill; in flight, shows white secondaries and tips of inner primaries; white lining on edge of underwing • female has black crest.



Flight Pattern	
	
Strong powerful wing beats when traveling distances; alternates rapid wing strokes with brief periods of wings folded to sides on short flights beneath the canopy.	

Nest Identification	
Shape 	Location   

Few wood chips • dead or live tree in shaded area, 15–85 feet above ground
• excavated by both sexes; female sometimes does more • 3–8 white eggs; oval to elliptical, 1.3 x 1.0 inches.

Plumage Sexes differ	Habitat   	Migration Nonmigratory	Weight 10.9 ounces
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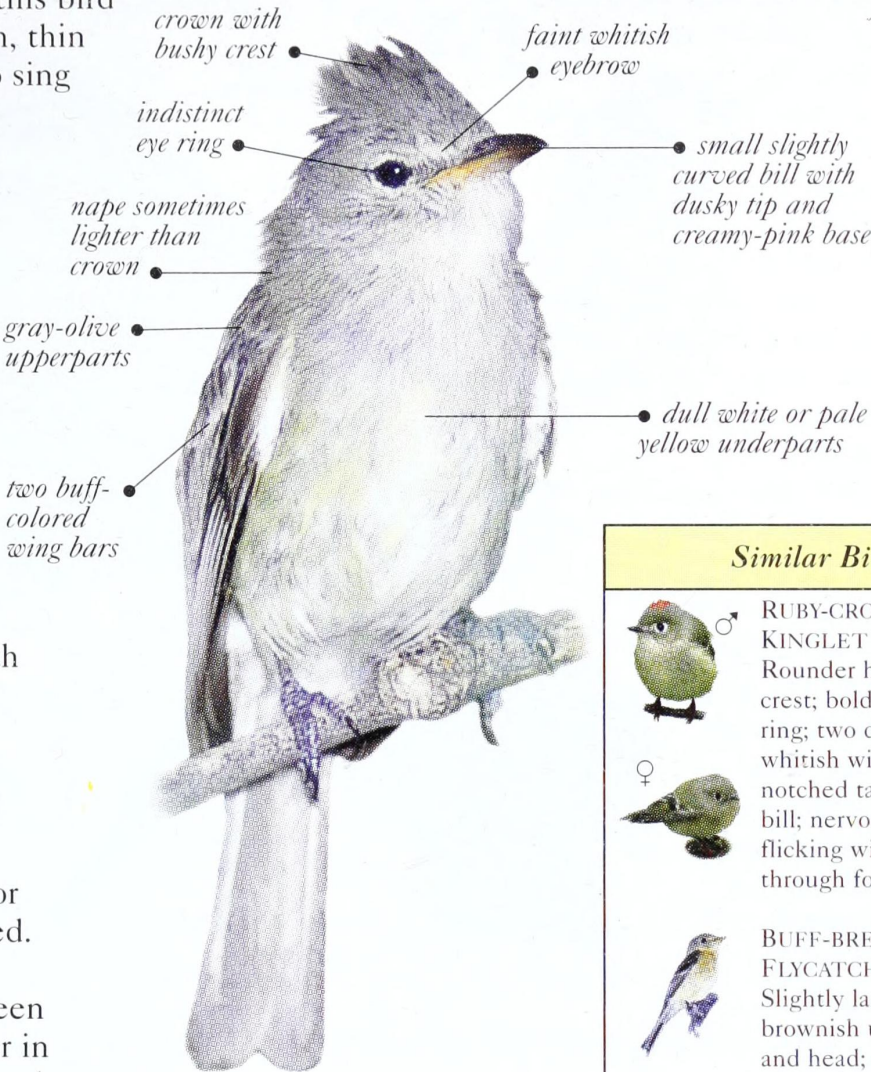
DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Camptostoma imberbe</i>	Length 4.5 inches	Wingspan 7 inches
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NORTHERN BEARDLESS-TYRANNULET

As it is difficult to spot, this bird is best located by its high, thin voice. The male tends to sing from high perches in tall trees. Once spotted, this little flycatcher can be somewhat difficult to identify, especially if the crest is not raised and apparent. In conjunction with its voice, crest, and small size, other characteristics are the bird's fairly upright posture and wagging tail.

- **SONG** Clear notes with a whistled, slightly nasal *peeert* or *pee-yerp*. Also 3–5 or more brief melancholy downslurred notes, *dee-dee-dee-dee*.
- **BEHAVIOR** Solitary or in pairs. Easily overlooked. Forages low to high. In summer months, often seen hawking insects in midair in the manner of other flycatchers. In winter, forages for insects by gleaning from twigs and leaves like a kinglet, warbler, or vireo. Also feeds on small berries.
- **BREEDING** Monogamous.
- **NESTING** Breeding biology poorly known. Incubation time undetermined, but known to be performed by female. Young altricial; fed by both sexes. Age at first flight undetermined. 1–2 broods per year.
- **POPULATION** Uncommon in southeast Arizona and southern Texas, although can be locally common within range.



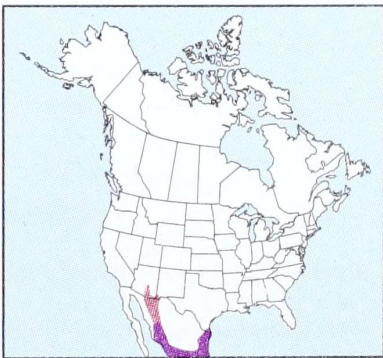
Similar Birds



RUBY-CROWNED KINGLET
Rounder head; lacking crest; bold white eye ring; two distinct whitish wing bars; short notched tail; tiny dark bill; nervous habit of flicking wings as it hops through foliage.



BUFF-BREASTED FLYCATCHER
Slightly larger; pale brownish upperparts and head; cinnamon-buff breast; belly and undertail coverts washed pale yellowish white to buff-white; 2 whitish wingbars; white eye ring forms "teardrop"; white webs on outer tail feathers
• more limited Southwest range.



Flight Pattern	
Rather weak direct flight on rapidly beating wings. Often flies out from perch to take flying insect and returns.	

Nest Identification	
Shape	Location

Size and shape of baseball, with high entrance on one side • grass- and weed-lined, with vegetation, down, and feathers • outer branches of deciduous tree, 4–50 feet above ground; often built in the stems of a clump of mistletoe • built by female • 1–3 white eggs, finely marked with brown, olive, or gray spots at larger end; oval to long oval, 0.6 inch long.

- **CONSERVATION** Neotropical migrant. Resident from northern Mexico through Central America. May have declined with the loss of streamside habitat.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.3 ounce
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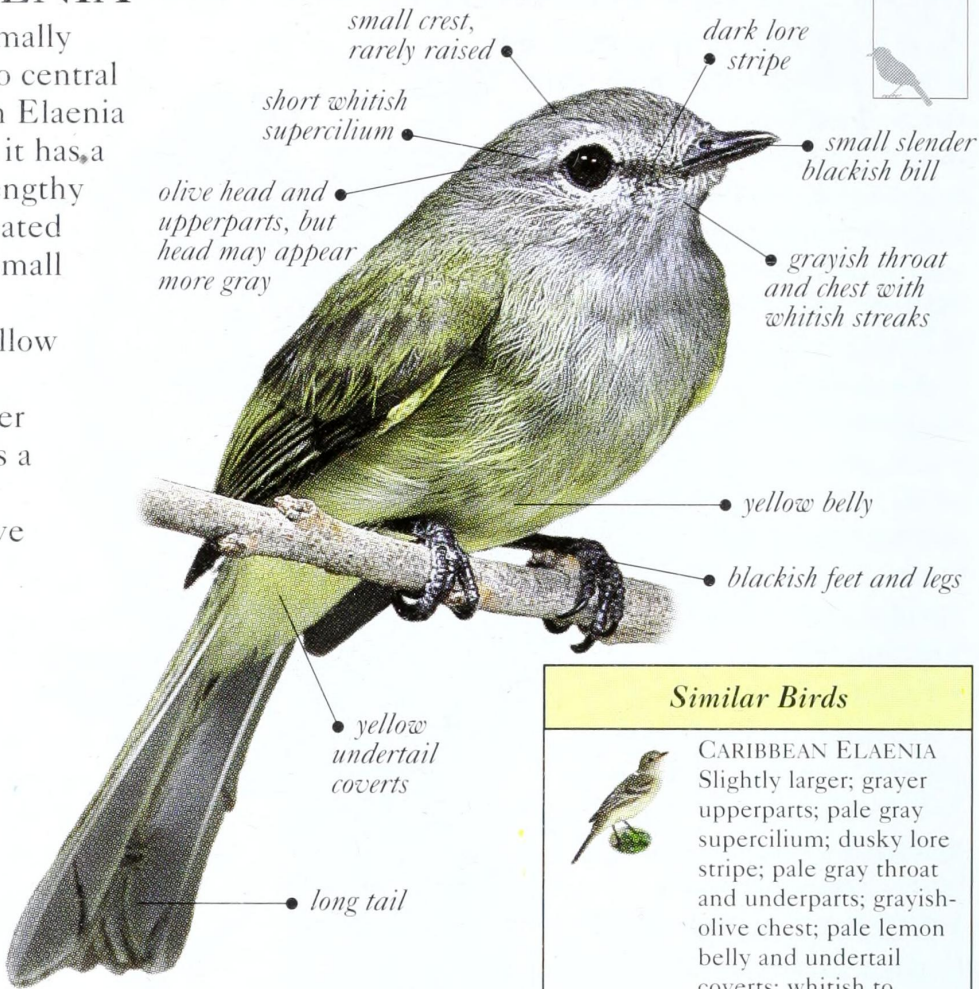
DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Myiopagis viridicata</i>	Length 5–5.7 inches	Wingspan 7.5–8.5 inches
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GREENISH ELAENIA

A neotropical flycatcher normally found from central Mexico to central South America, the Greenish Elaenia is easily overlooked because it has a tendency to sit silently for lengthy periods of time. It is best located by its high thin voice. This small brightly colored bird has a relatively flat head with a yellow crown stripe that is usually concealed, and a small slender blackish bill, which often has a creamy pinkish base or underside. Perched birds have a distinctive hunched-over appearance to their posture. Note the long tail, streaked border between chest and belly, and the lack of any conspicuous wing bars.

- **SONG** High thin rolling notes that sound like *speeeeerr* or *cheerip*, with the quality ranging from reedy to slurred, given in a descending scale. Calls also include a clearer *tee-eeu* or *tsee-chu*, as well as a plaintive *chee'eu*.
- **BEHAVIOR** Solitary, except during breeding season. Frequents groves of medium-sized trees. Forages in upper to mid-level trees, taking insects and insect larvae in short sallies. Darts out from perch for flying, walking, or crawling insects; takes insects either in midair or off branches and foliage, and then returns to perch. Often sits quietly between hawking flights. Diet also includes some fruit.
- **BREEDING** Monogamous. Solitary.



Similar Birds



CARIBBEAN ELAENIA
Slightly larger; grayer upperparts; pale gray supercilium; dusky lore stripe; pale gray throat and underparts; grayish-olive chest; pale lemon belly and undertail coverts; whitish to lemon-buff wingbars with panel on secondaries; broad white edges to tertials.



YELLOW-BELLIED FLYCATCHER
Big-headed and short-tailed; white eye ring; 2 white wing bars; olive upperparts and yellow underparts; dark upper mandible; creamy pink-orange lower mandible.

Flight Pattern	
Rather weak flight with rapid and somewhat shallow wing beats. Sallies out to take insects and returns to perch.	

Nest Identification	
Shape	Location

- **NESTING** Young altricial. 1 brood per year. Further breeding biology is essentially unknown.
- **POPULATION** Has occurred once in southeastern Texas. Fairly common to common across its native range.



Roots, tendrils, rachises of compound leaves, and spider's silk • in a fork at mid to upper levels, 20–35 feet above ground • nest so frail that eggs can be seen through bottom • 2 whitish eggs, streaked and blotched with chocolate and lilac; oval to long oval, 0.7 inch long.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 0.4 ounce
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DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Elaenia martinica</i>	Length 5.5–6 inches	Wingspan 8–9 inches
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CARIBBEAN ELAENIA

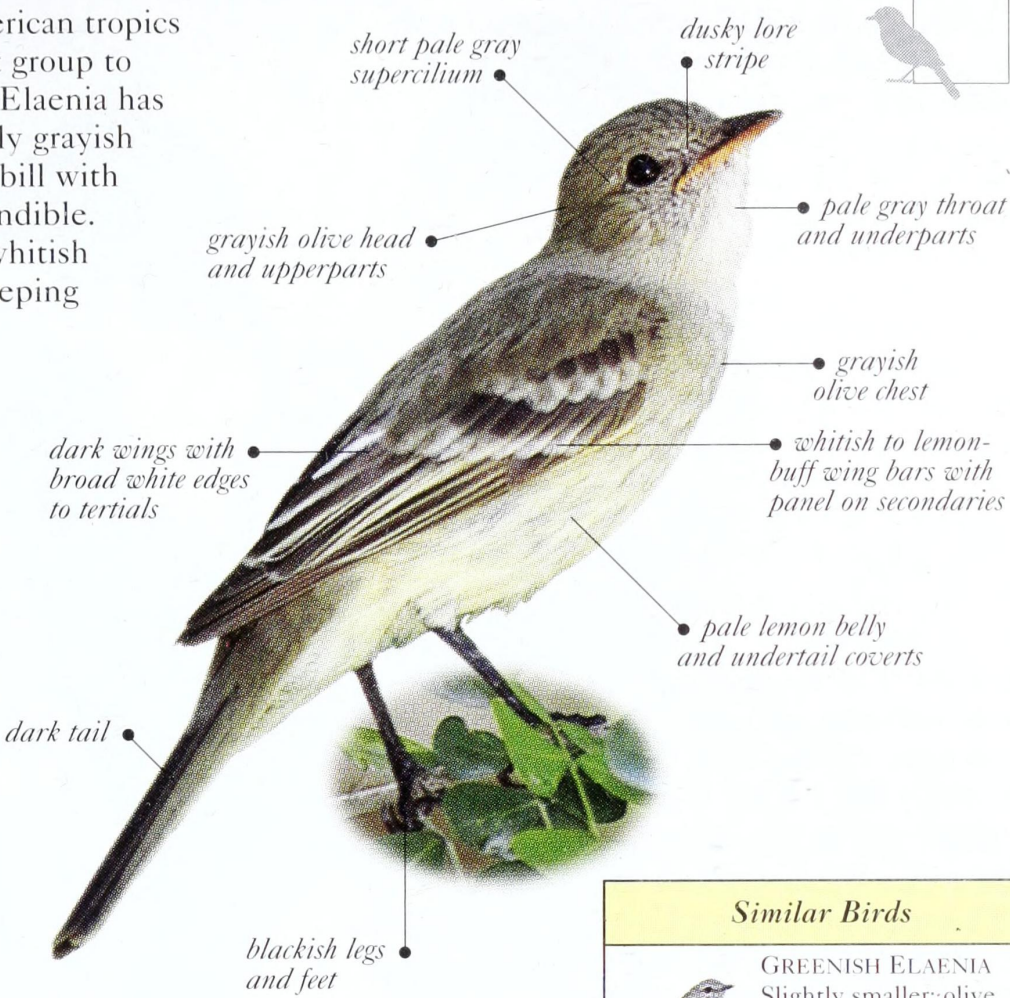
The elaenias of the American tropics are a notoriously difficult group to identify. The Caribbean Elaenia has a chunky, rather uniformly grayish body and a dark-colored bill with pinkish orange lower mandible. The bushy crest with a whitish base is seldom raised, keeping the white crown streak concealed.

• **SONG** Usually very quiet. Repertoire includes clear cheerful *whee-u* and *peeu*. Sometimes short trilled *pirrr* and grating *che-eup*, followed by *wi-wi-eup*.

• **BEHAVIOR** Solitary. Unobtrusive. Frequents humid to semihumid woodlands and edges. Like most elaenias, often keeps well hidden high in forest canopy, where it may be difficult to see, but sometimes perches fairly conspicuously on low trees or shrubs. Eats insects that it hawks in midair or gleans from foliage, but mostly feeds on small berries and on fruiting trees. When calling, often remains motionless with crest erected.

• **BREEDING** Monogamous. Solitary.
 • **NESTING** Period of incubation and by which sex is undetermined. Young altricial. Age at first flight unknown. 1–2 broods per year.
 • **POPULATION** Accidental to northwestern Florida. Fairly

common to common on the eastern Yucatan Peninsula of Mexico, and some islands offshore (Cozumel and Cayo Culebra); Belize; as well as in the Caribbean.



Similar Birds



GREENISH ELAENIA
 Slightly smaller; olive head and upperparts; short whitish supercilium; dark lores; grayish throat and chest; whitish streaks on throat; yellow belly, flanks, and undertail coverts; slender blackish bill; yellow-edged flight feathers on wing and tail; appears flat-headed but small crest raises when alarmed.



Flight Pattern



Weak fluttering flight with rather shallow wing beats. Sometimes sallies out for flying insects and returns to perch

Nest Identification

Shape 

Location  

Fine roots and grass stems, lined with finer rootlets and goat's hair; often in open scrub • roughly built on horizontal branch about 10 feet above ground
 • 2–3 whitish eggs, spotted with browns and grays; oval to long oval, 0.9 x 0.6 inches.

Plumage Sexes similar	Habitat   	Migration Nonmigratory	Weight 0.8 ounce
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DATE

TIME

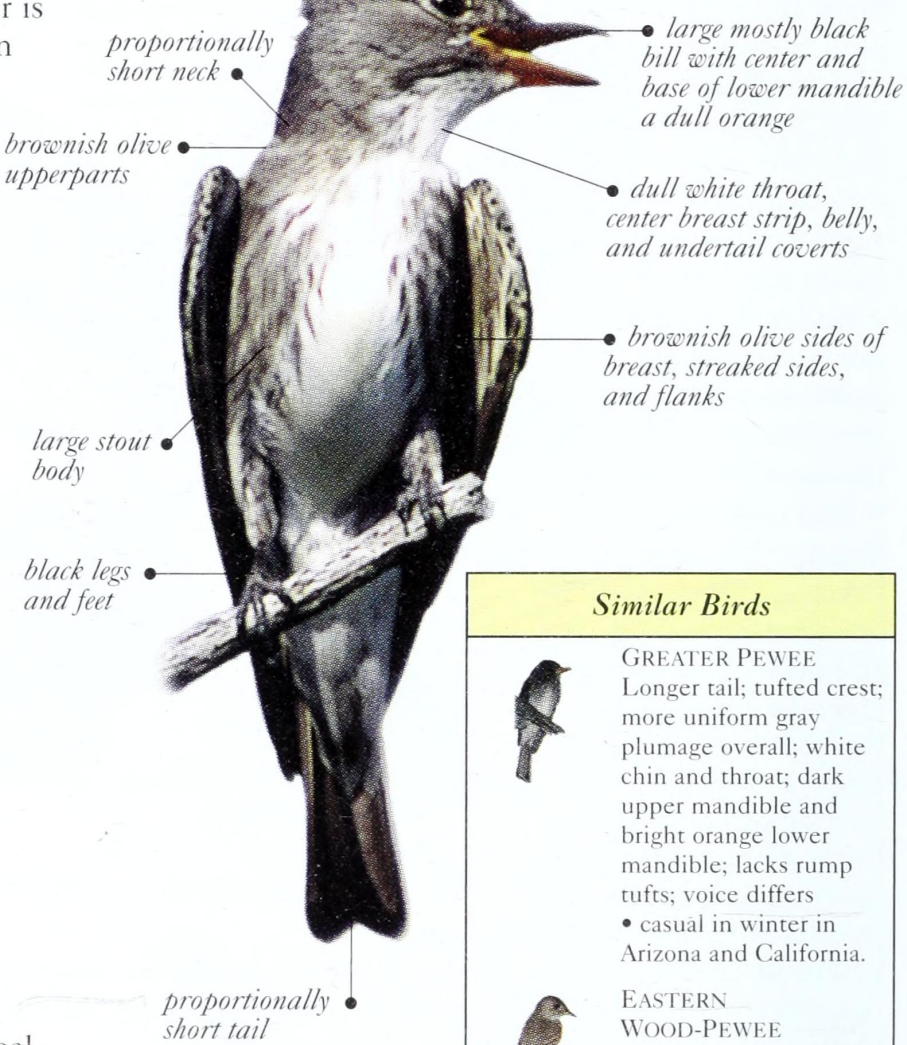
LOCATION

Family TYRANNIDAE	Species <i>Contopus cooperi</i>	Length 7.5 inches	Wingspan 13 inches
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OLIVE-SIDED FLYCATCHER

This is a stout large-headed flycatcher with dark olive sides and flanks and distinctive white rump side tufts, which are often concealed or obscured by the folded wings. The Olive-sided Flycatcher is often observed perched high on an exposed dead limb in a tree or on lookout in the tops of dead or living trees. Populations are on the decline in many regions, believed to be the result of disappearing winter habitats. Migration begins in late spring and early fall; these birds spend the winter as far away as Central and South America.

- **SONG** Call sounds like *quick three beers* with second note higher. Other calls include a trebled *pip*.
- **BEHAVIOR** Solitary. Reclusive. Often perched on high exposed branches. Hawks a wide variety of flying insects in midair, often taking larger insects the size of, and including, honeybees, beetles, and cicadas. Characteristic tendency is to vigorously defend nesting areas against predators and humans. Frequent open montane and boreal coniferous forests, burns, bogs, swamps, and areas around mountain lakes; uses dead trees for hunting perches.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 14–17 days by female. Young altricial; fed by both sexes; first flight at 21–23 days. 1 brood per year.



Similar Birds



GREATER PEWEE
Longer tail; tufted crest; more uniform gray plumage overall; white chin and throat; dark upper mandible and bright orange lower mandible; lacks rump tufts; voice differs
• casual in winter in Arizona and California.

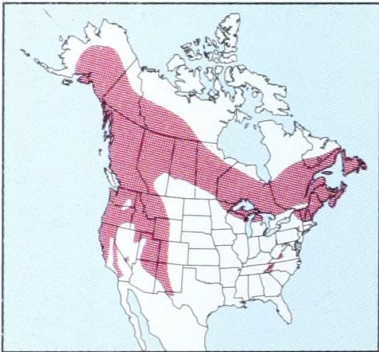


EASTERN WOOD-PEWEE
Smaller, sparrow-sized body; pale whitish to olive-gray underparts; lacks rump tufts; two narrow white wing bars; voice differs.

Flight Pattern	
Swift flight on rapidly beating wings. Sallies from perch to take flying insects with audible snap of bill; returns to perch.	

Nest Identification	
Shape	Location
Lined with lichen, grass, roots, twigs, weeds, and pine needles • in conifer, usually on horizontal branch, 5–70 feet above ground • built by female • 3–4 white to pinkish buff eggs with brown and gray spots concentrated at larger end; oval to short oval, 0.9 x 0.6 inches.	

- **POPULATION** Fairly common; casual in winter in coastal mountains of southern California. Declining; one factor may be deforestation and loss of habitat on wintering grounds.
- **CONSERVATION** Neotropical migrant.



Plumage Sexes similar	Habitat	Migration Migratory	Weight Undetermined
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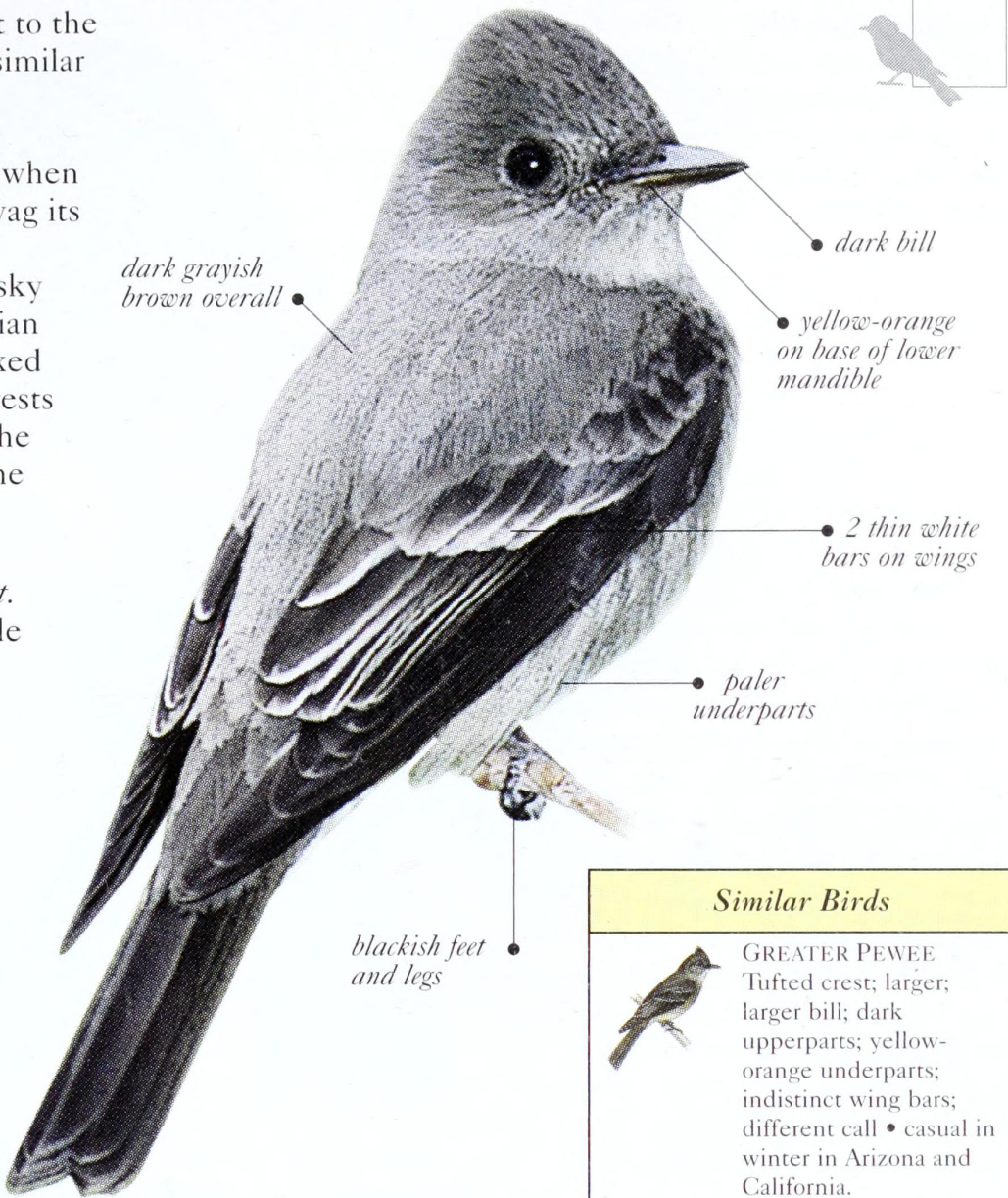
DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Contopus sordidulus</i>	Length 6.25 inches	Wingspan 10.5 inches
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WESTERN WOOD-PEWEE

The western counterpart to the Eastern Wood-Pewee is similar in appearance but has a different call. Like other pewees, its wings quiver when it lands, but it does not wag its tail. This sparrow-sized flycatcher is dark and dusky overall and inhabits riparian woodlands and open, mixed conifer and hardwood forests in the mountains. Note the two thin wing bars and the lack of an eye ring.

- **SONG** On breeding grounds sings *tswee-tee-teet*. Also has soft, nasal whistle *peer* or *peeyee*, given throughout the year. Often vocalizes before daylight; in evenings sometimes sings until after dark.
- **BEHAVIOR** Solitary. Stays quietly hidden in trees or perched in open view until it spots food, then flies out and snatches insect. Eats wide variety of small to medium flying insects, some spiders, and a few wild berries.
- **BREEDING** Monogamous.
- **NESTING** Incubation 12–13 days by female. Altricial young. Fed by both sexes. First flight at 14–18 days. 1 brood per year.



Similar Birds



GREATER PEWEE
Tufted crest; larger; larger bill; dark upperparts; yellow-orange underparts; indistinct wing bars; different call • casual in winter in Arizona and California.



EASTERN WOOD-PEWEE
More olive upperparts; less dusky underparts; pale bill; different voice.

Flight Pattern



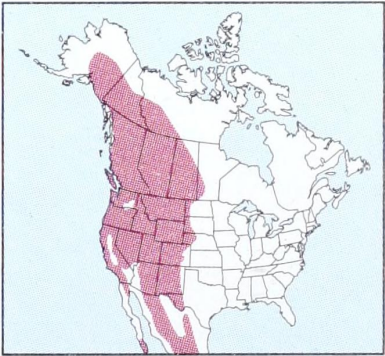
Weak fluttering direct flight with shallow wing beats. Sallies from perch to catch insects, returning to same or nearby perch.

Nest Identification

Shape 

Location 

Grass, plant fibers, and plant down • decorated outside with gray moss, leaves, and sometimes lichen • bound to branch with spider webs • in trees, usually conifer, on horizontal branch 15–75 feet above ground • built by female • 2–4 whitish to creamy eggs blotched with brown and lavender, often concentrated toward larger end; oval to short oval, 0.7 inch long.



Plumage Sexes similar	Habitat 	Migration Migratory	Weight 0.5 ounce
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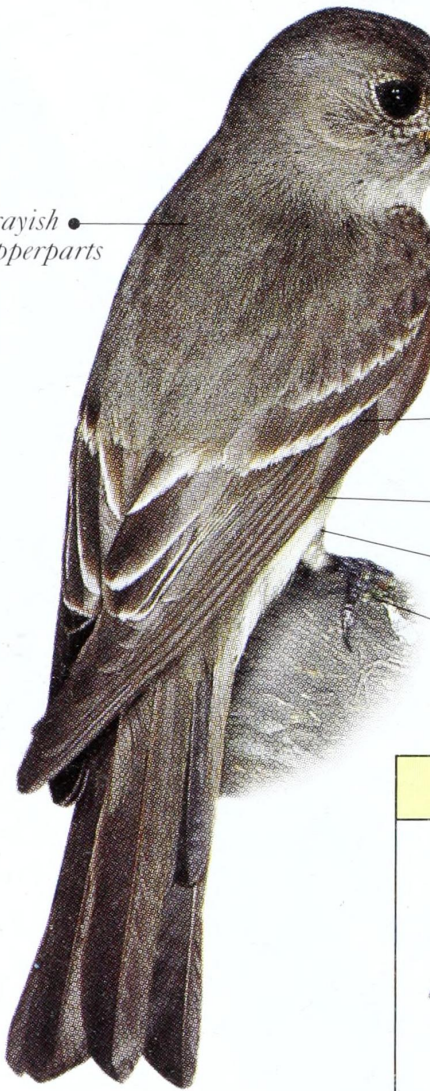
DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Contopus virens</i>	Length 6.25 inches	Wingspan 10.5 inches
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EASTERN WOOD-PEWEE

Although this bird is very difficult to distinguish visually from its western counterpart, the Western Wood-Pewee, their ranges barely overlap and their voices differ. Like most flycatchers, it tends to perch on an open lookout among thick trees or shrubs, sailing into the open only to feed. It is often first detected by its voice, because it often calls its distinctive *pee-a-wee* while perched, awaiting its next chance at a flying insect. Juveniles are similar to adults but both upper and lower mandibles showing dark coloration.

- **SONG** During the day whistles distinctive, slow plaintive *pee-a-wee*, with second note lower; on second or third repeat, often followed by *pee-yeer*; second note lower. At dusk and early dawn, sings *ah-de-dee*.
- **BEHAVIOR** Solitary. Perches on open and/or dead branches in trees to spot prey; flies out to catch food. Eats a wide variety of flying insects, including beetles, flies, moths, wasps, and bees. Takes some spiders and a few berries. Like other flycatchers, it often defends its territory even from larger birds by flying at them and pecking at their backs.
- **BREEDING** Monogamous.
- **NESTING** Incubation 12–13 days by female. Young altricial; stay in nest 14–18 days, fed by both sexes. 1 brood per year.



dark grayish-olive upperparts

dark upper mandible

yellow-orange lower mandible

whitish throat, center breast, and belly

2 thin whitish wing bars

pale dusky olive sides and flanks

pale underparts washed yellowish

black feet and legs



Similar Birds



WESTERN WOOD-PEWEE
Ranges barely overlap; very similar in size and appearance; duskier and darker overall; darker lower mandible; voice is different.



EASTERN PHOEBE
Slightly larger; paler whitish to yellow underparts; lacks wing bars; both mandibles dark; pumps tail up and down while perched, especially upon landing; voice differs.

Flight Pattern

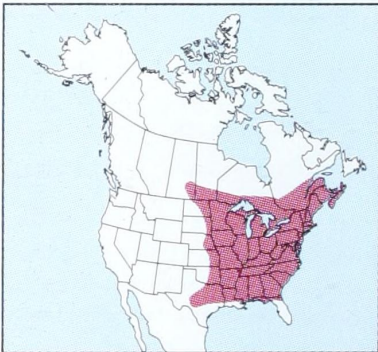


Rather slow fluttering direct flight on shallowly beating wings. Sallies forth to catch insects in midair, returning to perch.

Nest Identification

Shape  Location  

- **POPULATION** Fairly common and widespread. Casual in the West in migration.
- **CONSERVATION** Neotropical migrant. Infrequent host to cowbird's eggs. Decline due to possible loss of South American wintering habitat.



Grass, plant fibers, and spider web, covered with thick layer of lichens • fork of tree or saddled on horizontal branch, 15–50 feet above ground • built by female • 2–4 whitish eggs, with brown blotches and purple, often wreathed at large end; oval to short ovate, 0.7 x 0.5 inches.

Plumage Sexes similar	Habitat  	Migration Migratory	Weight 0.5 ounce
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DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Empidonax flaviventris</i>	Length 5.5 inches	Wingspan 8.5 inches
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YELLOW-BELLIED FLYCATCHER

Once you spot this small bird, its yellowish underparts from chin to undertail coverts make it easy to identify because it is the only eastern *Empidonax* with a yellow throat. Voice and habitat also are key to clinching the identification. It usually stays hidden low in trees, shrubs, or thickets, but making various squeaking or kissing sounds on the back of your hand may lure it from its hiding place. This flycatcher is credited with eating more ants than any other empid.

• **SONG** Often silent in migration. Slurred and explosive pse-ek! Also makes a per-WEE, reminiscent of a pewee's short song, and a shrill chiu.

• **BEHAVIOR** Secretive and quiet. Stays low in thickets near the ground and inside foliage in wet swampy woods.

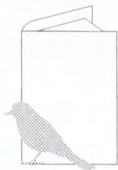
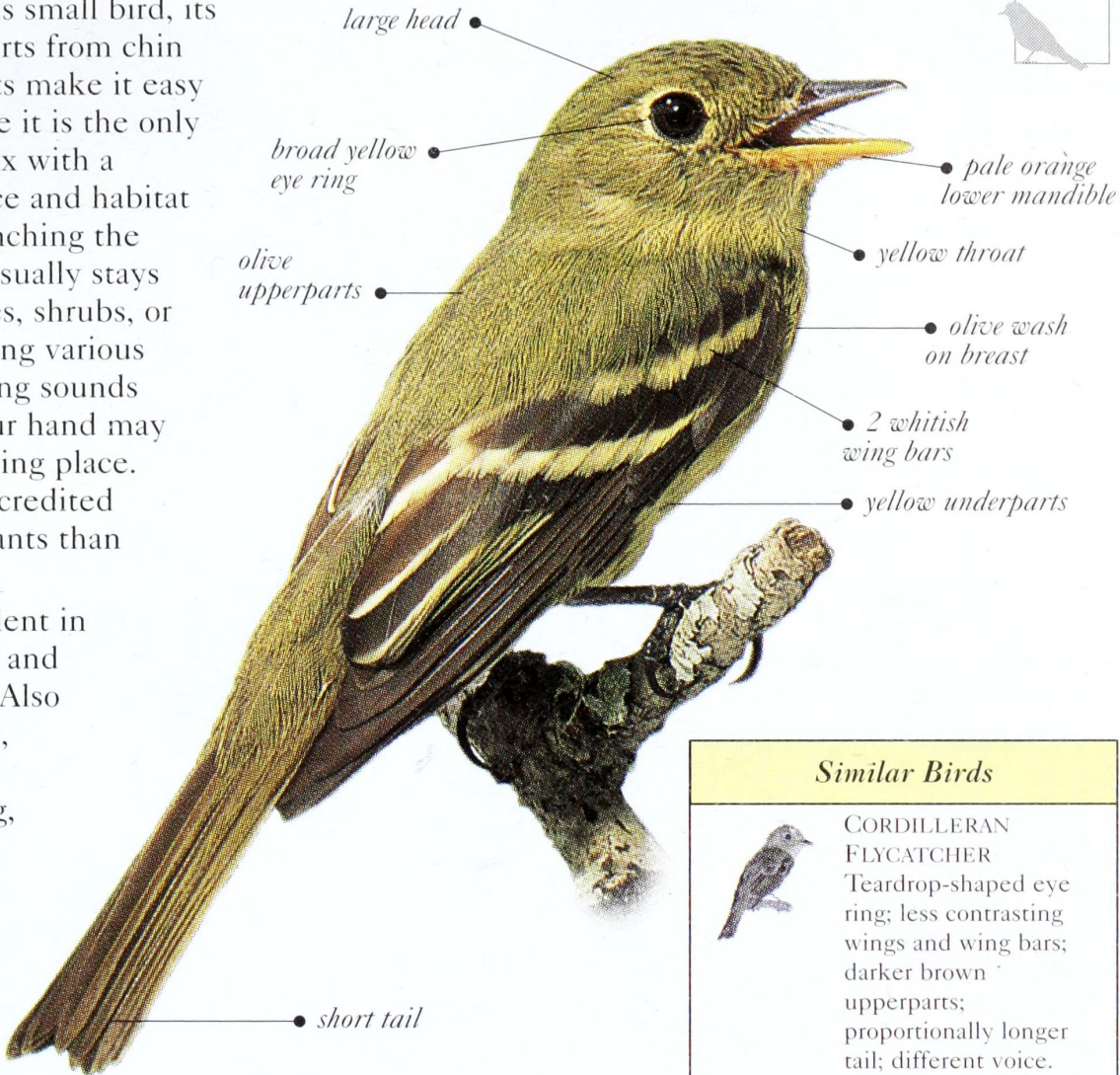
Eats a variety of insects, including beetles, moths, tent caterpillars, flies, ants, and some spiders. May subsist on mountain ash during severe weather. As it gives its single strong note it flutters its wings and jerks its head and tail as if the vocal effort was so strenuous as to cause the shudder.

• **BREEDING** Monogamous. Solitary.

• **NESTING** Incubation 12–14 days by female. Altricial young fed by both sexes. First flight at 13–14 days. 1 brood per year.

• **POPULATION** Common to fairly common. Stable.

• **CONSERVATION** Neotropical migrant. Occasionally parasitized by Brown-headed Cowbird.



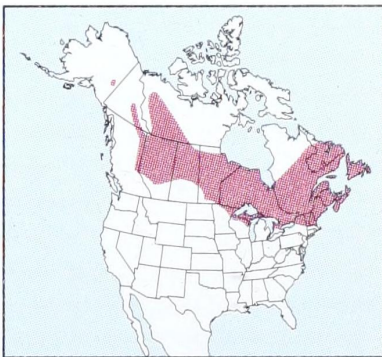
Similar Birds



CORDILLERAN FLYCATCHER
Teardrop-shaped eye ring; less contrasting wings and wing bars; darker brown upperparts; proportionally longer tail; different voice.



ACADIAN FLYCATCHER
Whitish gray throat; buff to white wash on wing bars; larger bill is yellowish below; yellow wash on belly and undertail coverts; proportionally longer tail; different voice.



Flight Pattern	
Weak fluttering flight with shallow rapid wing beats. Sallies from perch to hawk insects and returns to same or nearby perch.	

Nest Identification	
Shape	Location

Twigs, rootlets, weeds, and moss • lined with thin rootlets, grass, and fresh leaves • atop hillock of moss or on upturned stumps among roots of fallen trees, 0–2 feet above ground • built by female • 3–5 white eggs with light brown dots that become heavier near larger end; oval to short oval, 0.7 by 0.5 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.4 ounce
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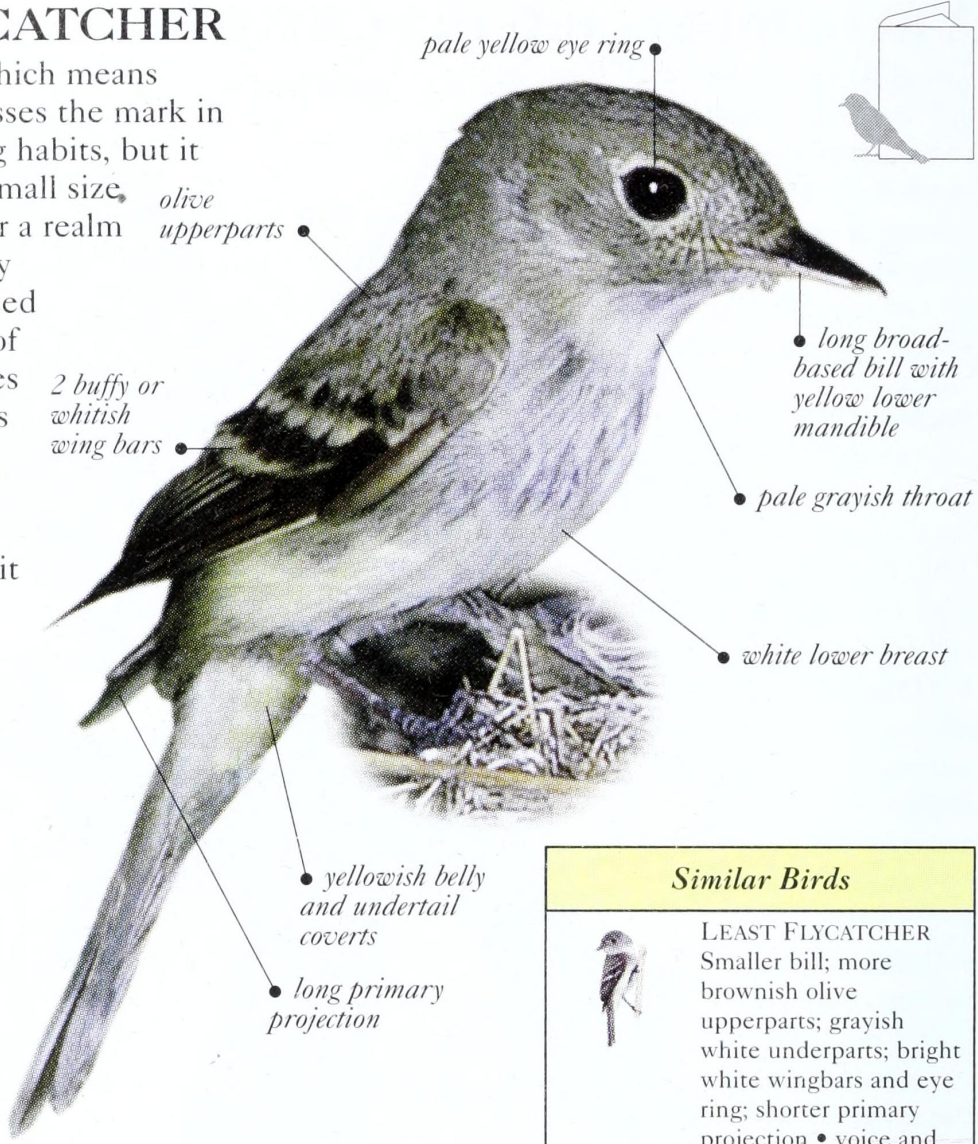
DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Empidonax virescens</i>	Length 5.75 inches	Wingspan 8.75 inches
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ACADIAN FLYCATCHER

Its scientific genus name, which means “mosquito king,” widely misses the mark in describing this bird’s feeding habits, but it is an apt description of the small size of a flycatcher that lords over a realm of small insects. It is the only *Empidonax* flycatcher to breed in the deep southern states of North America, where it rules in heavily wooded deciduous bottomlands, swamps, and riparian thickets, and in the wooded ravines of drier uplands. Like other empids it is best known by its voice.

- **SONG** Soft call of *peace* or *peeet*. Its explosive *PIZ-za!!* sounds like a bird sneezing. On territory, males utter a mechanical *ti, ti, ti, ti* as they move from one perch to the next beneath the canopy.
- **BEHAVIOR** Solitary. Easily overlooked except for its occasional vocalizations. Perches in shade on lower to mid-level branches in thick trees to search for food, then dashes out to snatch insect. Eats wide variety of flying insects. Frequents wet areas in open woodlands where it aggressively drives away larger birds and other intruders from the breeding territory.
- **BREEDING** Monogamous.
- **NESTING** Incubation 13–15 days by female. Young altricial; fed by both sexes, but more by female. First flight at 13–15 days; male may feed fledglings while female starts second clutch. 2 broods per year.



Similar Birds



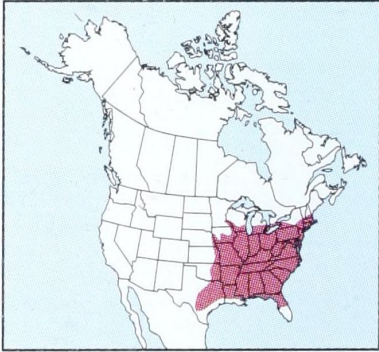
LEAST FLYCATCHER
Smaller bill; more brownish olive upperparts; grayish white underparts; bright white wingbars and eye ring; shorter primary projection • voice and breeding habitat differ.



WILLOW FLYCATCHER



ALDER FLYCATCHER
Less distinct eye ring, less contrasting wings with dull wingbars; and more brown upperparts • voice and breeding habitat differ.



Flight Pattern



Weak fluttering flight with shallow wing beats on rapidly beating wings. Sallies out from perch and takes insects in flight, then returns to same or nearby perch.

Nest Identification

Shape 

Location   

- **POPULATION** Common; range expanding in Northeast.
- **CONSERVATION** Neotropical migrant. Frequently nest parasitized by Brown-headed Cowbird.

Sticks, grass, dried stems, and bits of bark and cobweb; lined with grass, hair, and plant down • sloppy/messy-looking with long streamers of grasses hanging beneath cup • in fork of horizontal limb well out from trunk • 3–25 feet up • built by female • 2–4 creamy white eggs, with sparse brown spots; oval to short oval; 0.7 x 0.6 inches.

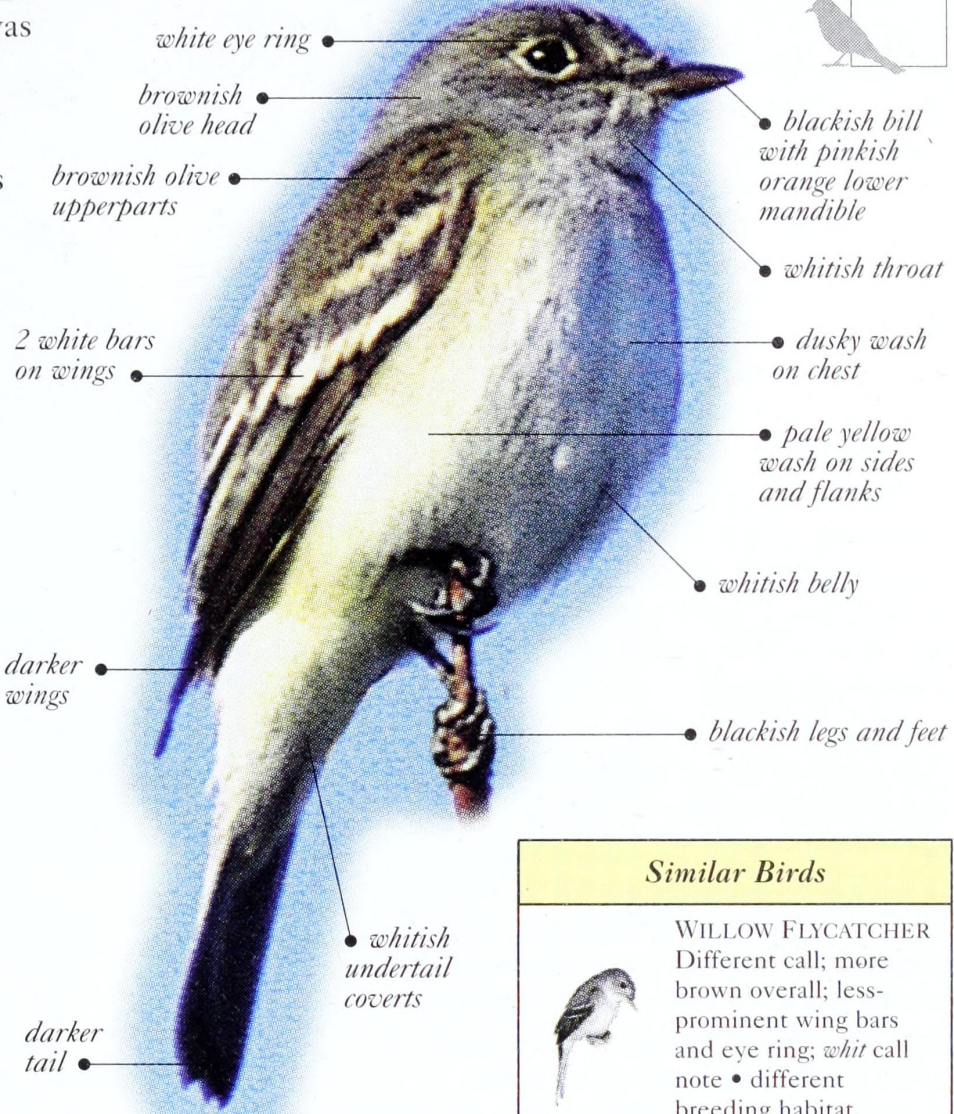
Plumage Sexes similar	Habitat  	Migration Migratory	Weight 0.5 ounce
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Family TYRANNIDAE	Species <i>Empidonax alnorum</i>	Length 5.75 inches	Wingspan 8–9 inches
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ALDER FLYCATCHER

Perhaps the most green-brown of the eastern empids, this bird was formerly known as Traill’s Flycatcher, from which both it and the Willow Flycatcher were split into separate species in the 1970s. This shy bird is easily overlooked; during nesting season it stays hidden within the thick trees and shrubs of its alder swamp and wet meadow-thicket habitat. Occasionally it can be spotted dashing out of hiding to catch passing insects or perching conspicuously on an exposed branch to sing.

- **SONG** Raspy *fee-bee-o* or *way-bee-o* on breeding grounds. Also has call of bold *pep*.
- **BEHAVIOR** Male sings repeatedly for first 2 weeks after returning to territory in late spring, but after he bonds with female is largely silent. Stays low in thick vegetation, often hunting inside umbrella of thicket canopy. Perches in shrubs to spot prey, then catches it in flight. Eats wide variety of flying insects; gleans some from vegetation, including spiders and millipedes. Also feeds on some types of small berries.
- **BREEDING** Monogamous.
- **NESTING** Incubation 12–14 days by female. Altricial young. Fed by both sexes. First flight at 13–14 days. 1 brood per year.



Similar Birds

WILLOW FLYCATCHER
Different call; more brown overall; less-prominent wing bars and eye ring; *whit* call note • different breeding habitat.

ACADIAN FLYCATCHER
Greener upperparts; longer tail; yellowish eye ring; yellow wash on belly and undertail coverts; different voice and habitat.

Flight Pattern

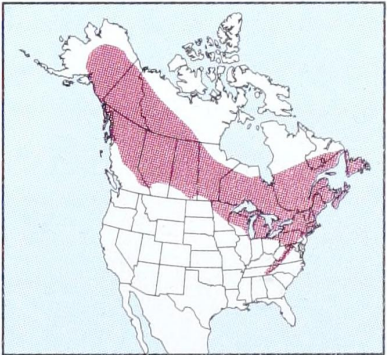
Weak fluttering direct flight with shallow wing beats. Sallies to hawk flying insects, often returning to same or nearby perch.

Nest Identification

Shape

Location

Grass, weeds, bark strips, small twigs, and rootlets • lined with plant down or other soft materials • in horizontal or upright fork of shrub or low tree 1–4 feet (sometimes as high as 30 feet) above ground • built by female • 3–4 white eggs dotted with brown on larger end; oval, 0.7 x 0.55 inches.



Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.5 ounce
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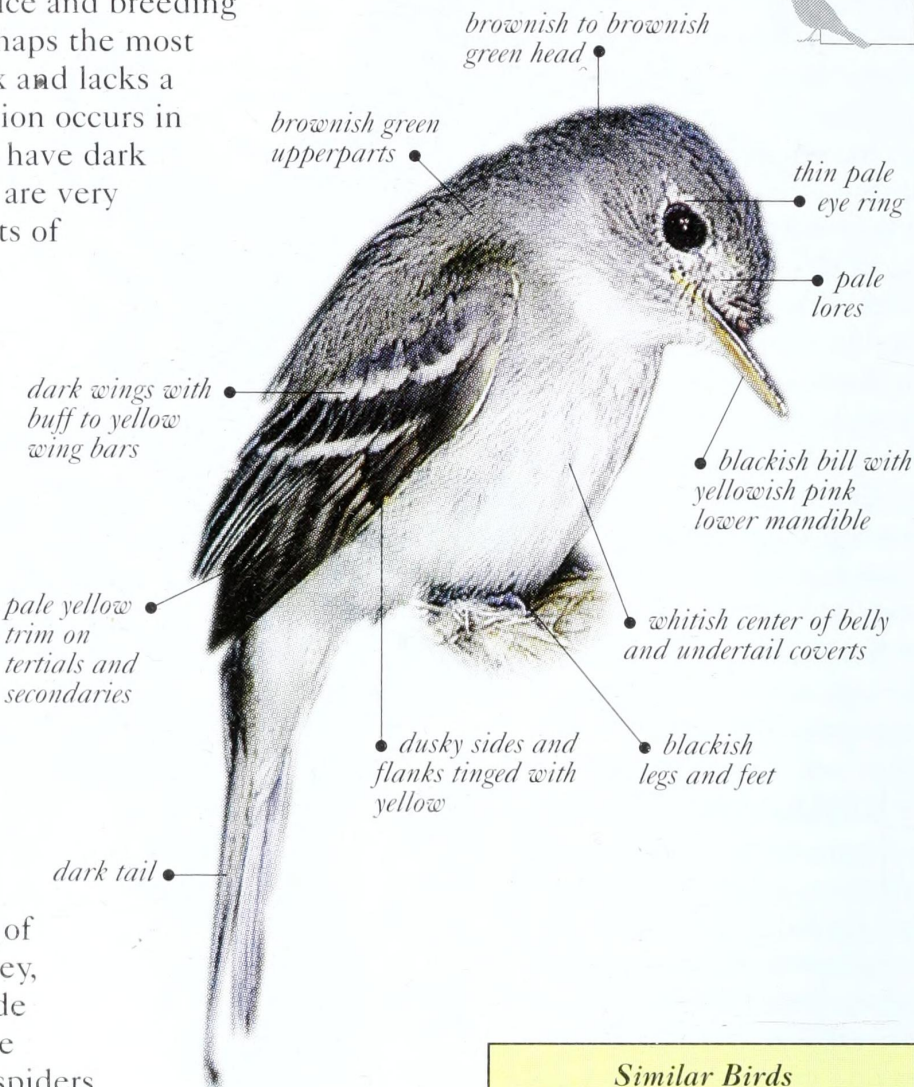
DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Empidonax traillii</i>	Length 5.75 inches	Wingspan 8–9 inches
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WILLOW FLYCATCHER

This bird can be distinguished from other *Empidonax* flycatchers by its voice and breeding habitat preference, plus it is perhaps the most brown of the eastern *Empidonax* and lacks a prominent eye ring. Much variation occurs in overall color: northwestern races have dark heads, while southwestern races are very pale. The compact, intricate nests of these birds often have streamers hanging underneath. Formerly lumped together with the Alder Flycatcher as the Traill's Flycatcher.

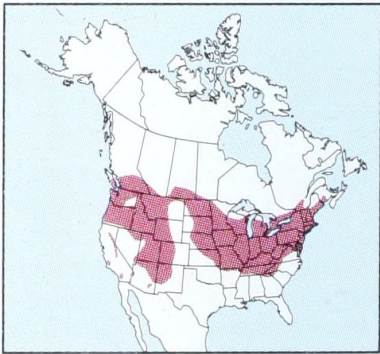
- **SONG** Often silent in migration. Utters harsh, burry *fitz-beew* or *fritz-be-yew*, resembling a sneeze with accent on first syllable. Call a loud, thick *whit!*
- **BEHAVIOR** Inhabits swamps and willow thickets along streams. Often perches low below crown of vegetation; when singing uses exposed perch. Males chase females in courtship flights similar to those of other empids. Perches to spot prey, then catches it in flight. Eats wide variety of flying insects and those gleaned from foliage; also takes spiders and some berries.
- **BREEDING** Monogamous.
- **NESTING** Incubation 12–15 days by female. Altricial young. Fed by both sexes. First flight at 12–14 days. 1 brood per year.
- **POPULATION** Fairly common and expanding southern range in the East; uncommon to rare in parts of the West; declining on West Coast. Decline due to loss of streamside habitat.
- **CONSERVATION** Neotropical migrant. Nests parasitized by Brown-headed Cowbird. Populations increase with reduced cattle grazing in breeding habitats and cessation of killing and removing streamside willow thickets.



Similar Birds



ALDER FLYCATCHER
Shorter bill; more prominent eye ring; more olive-gray to olive-brown back; bolder buff wing bars • different voice and habitat.



Flight Pattern	
Weak fluttering flight with shallow rapid wing beats. Sallies from perch to hawk flying insects, returning to perch.	

Nest Identification	
Shape	Location

Bark, grass, rootlets, and bits of plants • lined with plant down and other soft vegetation • in fork of deciduous tree or shrub 2–15 feet above ground • built by female • 2–4 pale buff to whitish eggs with brown spots that become thicker on the larger end; oval to short oval, 0.7 x 0.55 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.5 ounce
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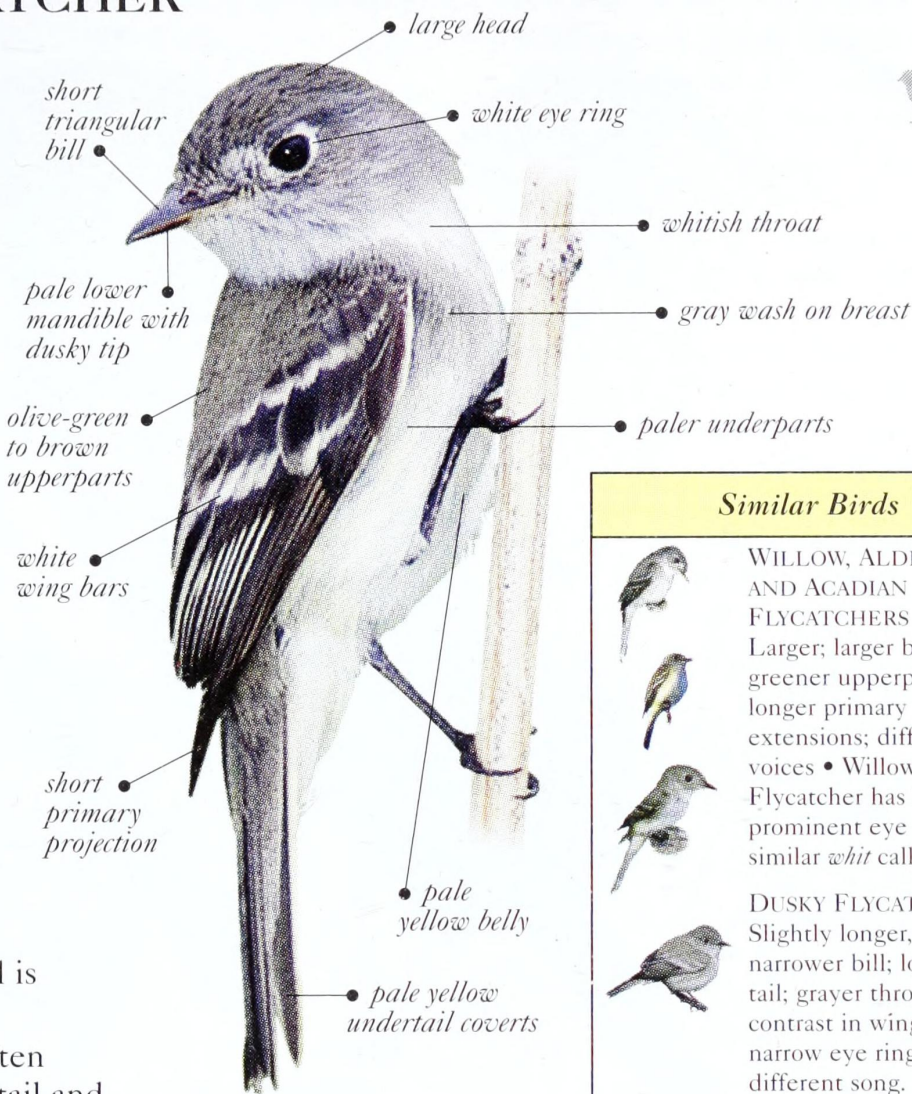
DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Empidonax minimus</i>	Length 5.25 inches	Wingspan 7.5–8.5 inches
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LEAST FLYCATCHER

A common summer breeding resident in North America and the smallest of the eastern empids, the Least Flycatcher is perhaps the most often-encountered small flycatcher in the East. During breeding season the male makes a noisy territorial display, calling *chee-BECK* more than sixty times per minute while chasing other flycatchers in its territory. Note its small size, small bill, brown to olive wash on the upperparts, and conspicuous eye ring and wing bars.

- **SONG** Sings raspy repetitive *chee-BECK*. Call is piercing *whitt-whitt-whitt*.
- **BEHAVIOR** Active, often changing perches. Flicks tail and wings a lot; jerks tail strongly upward. Chases female in courtship; chases ecologically similar American Redstart out of nesting territory. Perches to spot prey, then catches it in the air while flying. Also gleans insects from branches and foliage. Eats wide variety of insects, some spiders, and a few berries and seeds.
- **BREEDING** Monogamous. Sometimes in loose colonies.
- **NESTING** Incubation 13–15 days by female. Altricial young stay in nest 12–17 days. Fed by both sexes. 1–2 broods per year.



Similar Birds

-  **WILLOW, ALDER, AND ACADIAN FLYCATCHERS**
Larger; larger bills; greener upperparts; longer primary extensions; different voices • Willow Flycatcher has less prominent eye ring but similar *whit* call note.
-  **DUSKY FLYCATCHER**
Slightly longer, narrower bill; longer tail; grayer throat; less contrast in wings; more narrow eye ring; different song.
-  **HAMMOND'S FLYCATCHER**
Small narrow bill; part of lower mandible is orangish; gray throat; darker olive-gray breast; more distinct teardrop-shaped eye ring; long primary projection; different voice.

Flight Pattern



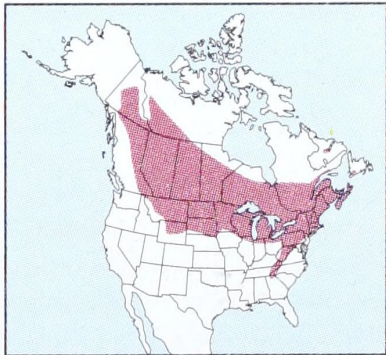
Weak fluttering direct flight with shallow wing beats. Sallies to take insects in flight and returns to same or nearby perch.

Nest Identification

Shape 

Location 

- **POPULATION** Common and widespread but declining in parts of range.
- **CONSERVATION** Neotropical migrant. Uncommon host to cowbird. Declining population noted by National Audubon Society.



Grass, bark strips, twigs, lichens, and plant fibers; bound by spider or caterpillar webs • in fork of tree or shrub 2–60 feet above ground • built by female • 3–6 creamy white eggs; ovate, 0.6 x 0.5 inches.

Plumage Sexes similar	Habitat 	Migration Migratory	Weight 0.4 ounce
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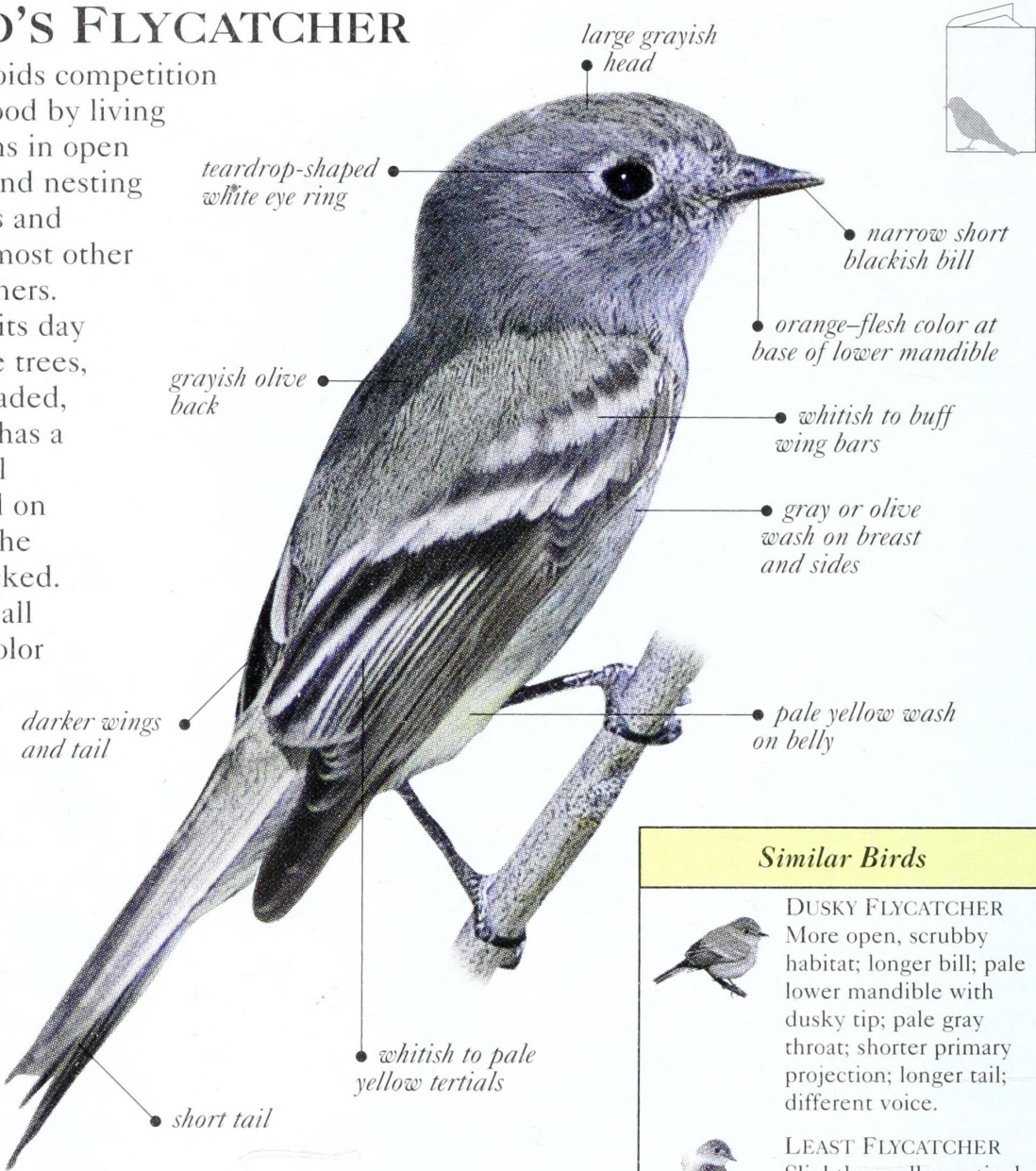
DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Empidonax hammondi</i>	Length 5.5 inches	Wingspan 9 inches
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HAMMOND'S FLYCATCHER

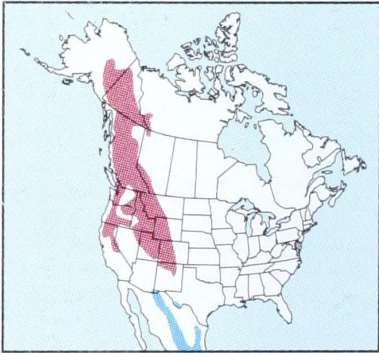
This small bird avoids competition for nest sites and food by living higher on mountains in open coniferous forests and nesting at higher elevations and farther north than most other *Empidonax* flycatchers. Spending much of its day perched high in the trees, this rather large-headed, short-tailed empid has a relatively horizontal stance, with the tail on the same plane as the body or slightly cocked. It often shows a small patch of orangish color at the base of the lower mandible.

- **SONG** Often silent for long periods of time. Low, rapid, hoarse, sharp two-syllable *sill-it* or *chi-pit* and low-pitched, rough *greeep* or *pweeet*. Call is raspy, sharp *peet*.
- **BEHAVIOR** Active, flicking tail frequently and often flicking wings at same time. Perches in tree to spot prey, then quickly catches it in flight. Eats wide variety of flying insects and others it gleans from foliage.
- **BREEDING** Monogamous.
- **NESTING** Incubation 12–16 days by female. Altricial young stay in nest 16–18 days. Fed by both sexes. 1 brood per year.



Similar Birds

- DUSKY FLYCATCHER**
More open, scrubby habitat; longer bill; pale lower mandible with dusky tip; pale gray throat; shorter primary projection; longer tail; different voice.
- LEAST FLYCATCHER**
Slightly smaller; actively flicks wings and tail; grayer above, whiter below; more prominent eye ring; lower mandible mostly yellowish; different voice.



Flight Pattern

Weak, fluttering direct flight with shallow wing beats. Sallies to take flying insects and returns to same or nearby perch.

Nest Identification

Shape

Location

- **POPULATION** Common and widespread. Casual in East.
- **CONSERVATION** Neotropical migrant. Vulnerable to loss of habitat from logging of montane coniferous forests.

Made of weed stems, grass, bark strips, and lichens • lined with finer materials, hair, feathers, and grass • on horizontal branch or fork of tree 10–60 feet above ground • built by female • 3–4 creamy white eggs, sometimes dotted with brown; ovate, 0.7 x 0.55 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.4 ounce
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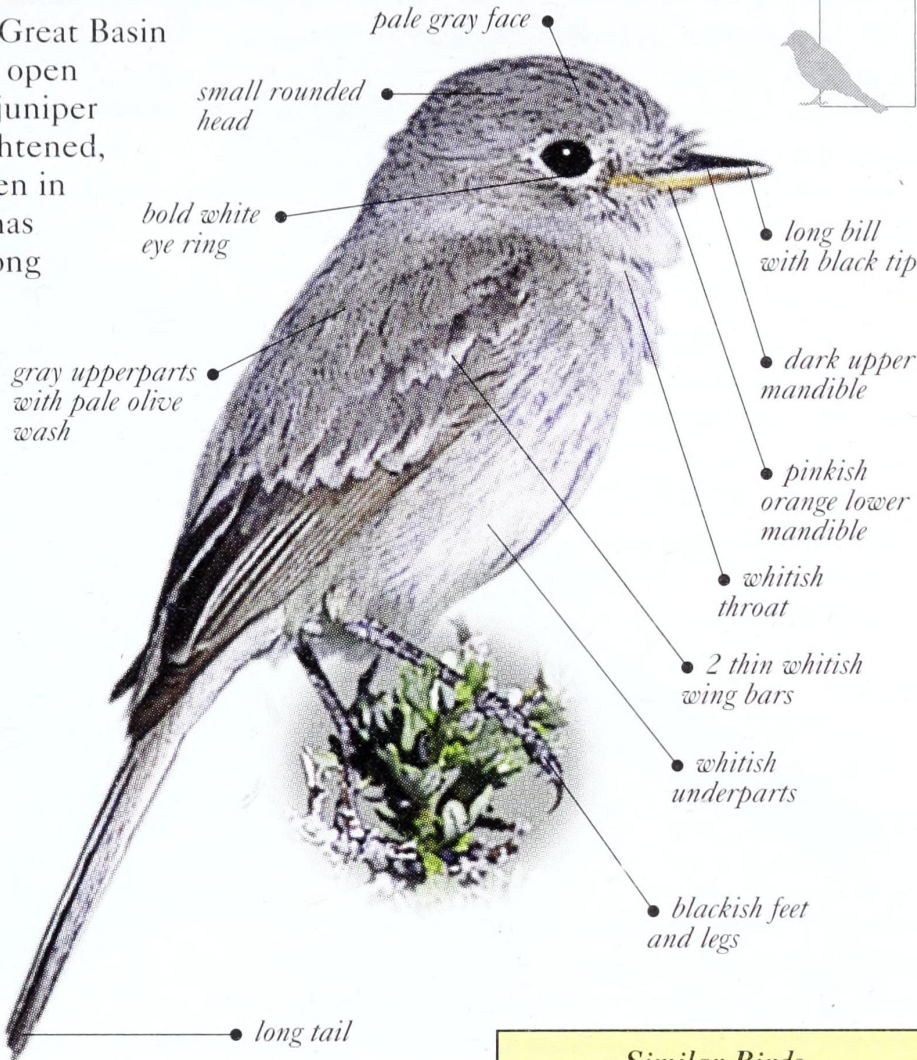
DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Empidonax wrightii</i>	Length 6 inches	Wingspan 9.5 inches
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GRAY FLYCATCHER

This shy bird is at home in the Great Basin spending most of its day in arid, open woodland, perched on piñon or juniper trees or in sagebrush. When frightened, it dives for cover and stays hidden in thick bushes until the intruder has passed. Its gray coloration and long tail, which it slowly bobs like a phoebe, make it the easiest empid to identify visually. By late fall, its whitish underparts show a pale yellow wash. Juveniles display two buffy rather than whitish wing bars.

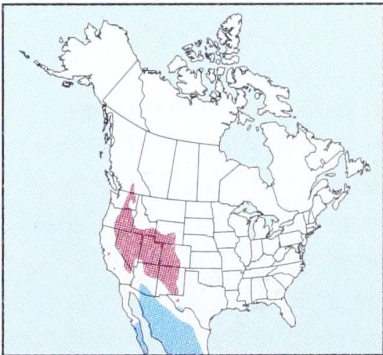
- **SONG** Sings an energetic irregular low-pitched *chee-whipp* or *chuwip*. Call note is a *whipp*.
- **BEHAVIOR** The tail-dipping trait is the most distinctive of any empid and differs from the upward tail jerks of several other species. The long tail is quickly twitched, then slowly lowered, and finally raised back to the original position. Tends to perch low and fly down, taking insects on or near the ground. Eats grasshoppers, beetles, wasps, bees, moths, and other small insects.
- **BREEDING** Monogamous.
- **NESTING** Incubation 14 days by female. Young altricial; stay in nest 16 days, fed by both sexes. First flight at 16 days. 1 brood per year.
- **POPULATION** Fairly common in semiarid habitat of the Great Basin. Casual to uncommon migrant in coastal California; accidental in the East.



Similar Birds



DUSKY FLYCATCHER
Frequents arid to semiarid scrub habitat
• shorter bill with dark orange base; pale throat; olive-gray upperparts; fairly conspicuous eye ring; voice differs, but call note is similar.



Flight Pattern



Weak fluttering flight on shallow wing beats. Sallies forth to hawk insects in flight, often returning to same perch.

Nest Identification

Shape  Location 

Weeds, bark, grasses, and twigs, lined with plant down, fine bark fibers, animal fur, and feathers • fork of shrub or conifer, 2–9 feet above ground • female builds; male sometimes helps • 3–4 creamy white eggs; oval to short oval, 0.7 x 0.6 inches.

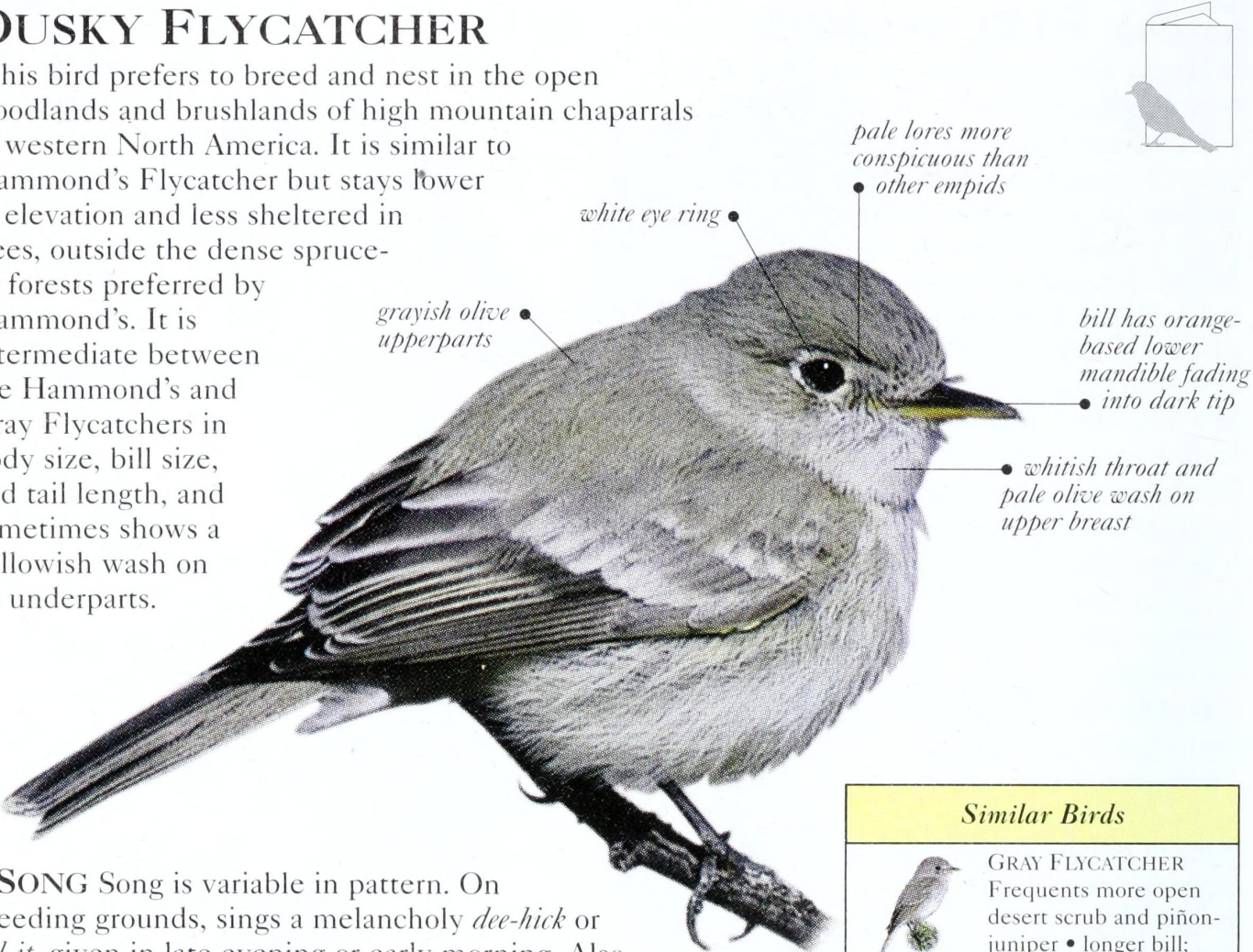
Plumage Sexes similar	Habitat 	Migration Migratory	Weight 0.4 ounce
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DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species Empidonax oberholseri	Length 5.75 inches	Wingspan 8–9 inches
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DUSKY FLYCATCHER

This bird prefers to breed and nest in the open woodlands and brushlands of high mountain chaparrals of western North America. It is similar to Hammond's Flycatcher but stays lower in elevation and less sheltered in trees, outside the dense spruce-fir forests preferred by Hammond's. It is intermediate between the Hammond's and Gray Flycatchers in body size, bill size, and tail length, and sometimes shows a yellowish wash on its underparts.



- **SONG** Song is variable in pattern. On breeding grounds, sings a melancholy *dee-hick* or *sill-it*, given in late evening or early morning. Also has songs of a rough *grrreep* and a clear high-pitched *pweet*. Call note is a dry *whit*.
- **BEHAVIOR** Solitary. Occasionally flicks tail upward while perched, but only flicks wings irregularly. Usually builds nests below 12 feet high, unlike Hammond's, which usually builds higher than 12 feet. Often perches in trees to sing. Feeds by gleaning insects from foliage and by hawking sallies; eats moths and other flying insects.
- **BREEDING** Monogamous.
- **NESTING** Incubation 12–16 days by female. Young altricial; stay in nest 15–20 days, fed by both sexes, but female does

more. Parents tend young another 21 days after leaving nest. 1 brood per year.

- **POPULATION** Common and increasing. Accidental in eastern US.
- **CONSERVATION** Neotropical migrant.

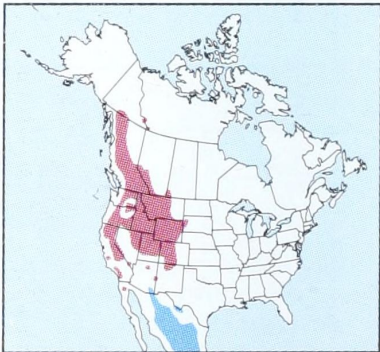
Similar Birds



GRAY FLYCATCHER
Frequents more open desert scrub and piñon-juniper • longer bill; long tail; overall gray coloration; gray-white throat; dips tail down like a phoebe.



HAMMOND'S FLYCATCHER
Frequents higher-elevation dense conifer forests • narrow, short bill with flesh-orange basal half to lower mandible; long primary extension; call differs.



Flight Pattern	
Weak fluttering flight with shallow wing beats. Sallies forth and picks off flying insects, often returning to the same perch.	
Nest Identification	
Shape	Location

Grasses, weeds, and bark, lined with plant down, soft grasses, feathers, and animal hair • fork of tree or shrub, 3–7 feet above ground • built by female • 3–4 chalky white eggs; ovate, 0.7 inch long.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.4 ounce
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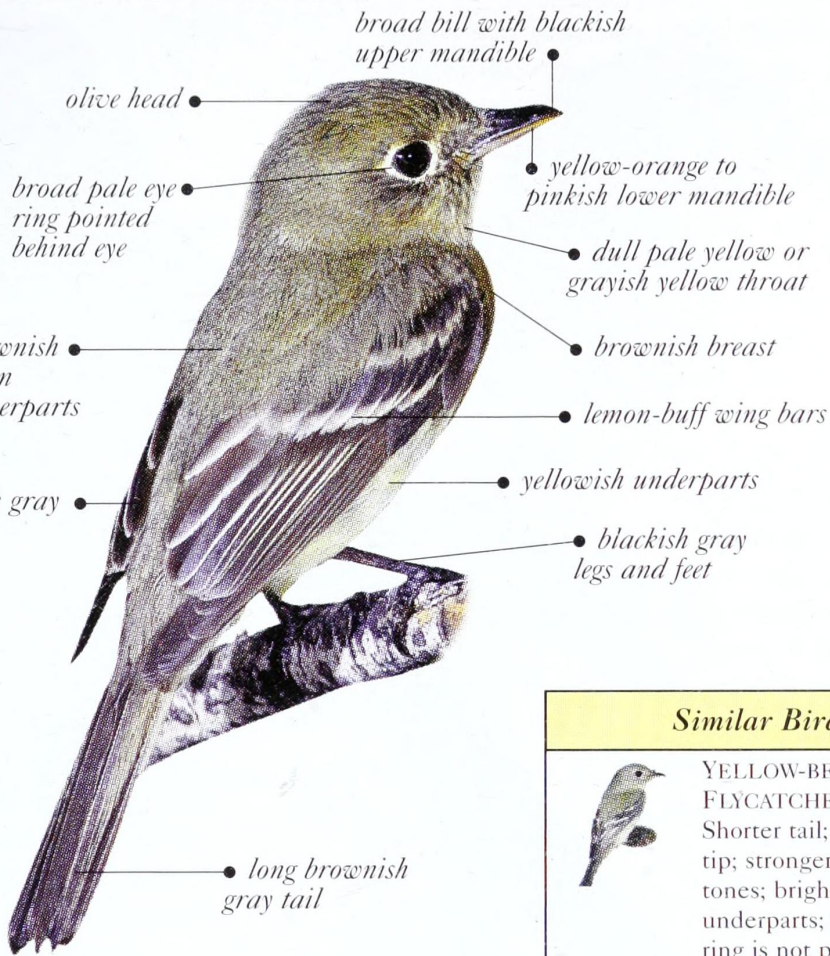
DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Empidonax difficilis</i>	Length 5.5 inches	Wingspan 8.5 inches
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PACIFIC-SLOPE FLYCATCHER

Formerly lumped together with the Cordilleran Flycatcher as one species; they were called the Western Flycatcher. It is impossible to distinguish the two species in the field except by voice and breeding range. This common forest inhabitant often is spotted perched in deep shade, singing repetitive notes and catching insects in midair. In winter it migrates to western and southern Mexico. This empid has a big head, teardrop-shaped eye ring, brownish green upperparts, and a yellow wash on its underparts.

- **SONG** Variable. Male gives distinguishing slurred, high-pitched, thin *psee-yeet*, whistled on rising scale and usually repeated in 3 parts. Male's call is *pit-peat*. Female's common call is sharp, thin, high-pitched *seet*.
- **BEHAVIOR** Solitary but not shy or elusive. Often found in shaded spots, rarely in open habitats. Active; often flicks tail and wings when perched. Hawks flying insects or gleans them from foliage. Sometimes eats berries and seeds.
- **BREEDING** Monogamous.
- **NESTING** Incubation 14–15 days by female. Altricial young stay in nest 14–18 days. Fed by both sexes. 1–2 broods per year.
- **POPULATION** Widespread and common despite forest cutting.



Similar Birds



YELLOW-BELLIED FLYCATCHER
Shorter tail; longer wing tip; stronger green tones; brighter yellow underparts; rounder eye ring is not pointed at rear; more rounded head; darker wings and back; greater contrasting wing bars and tertial edges; different voice • ranges barely overlap.



CORDILLERAN FLYCATCHER
Male has more disyllabic call of *wi-seet* or *wi-seen* • in breeding season has separate western range.

Flight Pattern

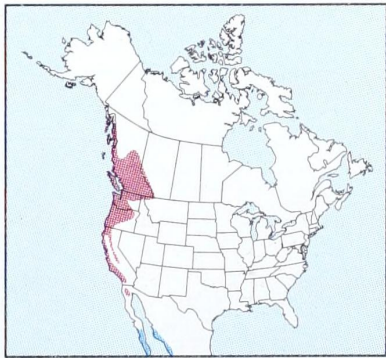
Weak, fluttering direct flight with shallow wing beats. Sallies to catch flying insects, then returns to perch.

Nest Identification

Shape

Location

Common Southwest migrant; accidental in the East.
• **CONSERVATION** Neotropical migrant. Rarely parasitized by cowbirds. Vulnerable to habitat loss from logging operations.



Made of plant materials, including moss, grass, roots, bark, lichens, and leaves, along with hair and feathers • on stream bank, rootlets of upturned tree, cliff ledge, eave of building, or in tree • 0–30 feet above ground • built by female • 3–5 whitish eggs with brown blotches near larger end; oval to short oval, 0.7 x 0.55 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.4 ounce
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DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Sayornis nigricans</i>	Length 6–7 inches	Wingspan 10.5–11 inches
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BLACK PHOEBE

An increasingly common bird, the Black Phoebe is often sighted pumping its tail, watching for prey from treetops and other perches. Because it nests, forages, and perches near water, a proliferation of artificial ponds and other bodies of water in its western range has ensured this species' survival. This is our only black flycatcher with a juncolike white pattern on its belly and undertail coverts. Juveniles show more brown and have a cinnamon rump and two indistinct cinnamon wing bars.

• **SONG** Most common call is a sharp *seek!* Typical song is in 4 parts, beginning with a rising scale followed by 2 descending notes, *pee-wee, pee-wee*; usually given at dawn but also often during the day, repeated many times, and often given while circling in flight. Also occasionally makes loud *tsee*.

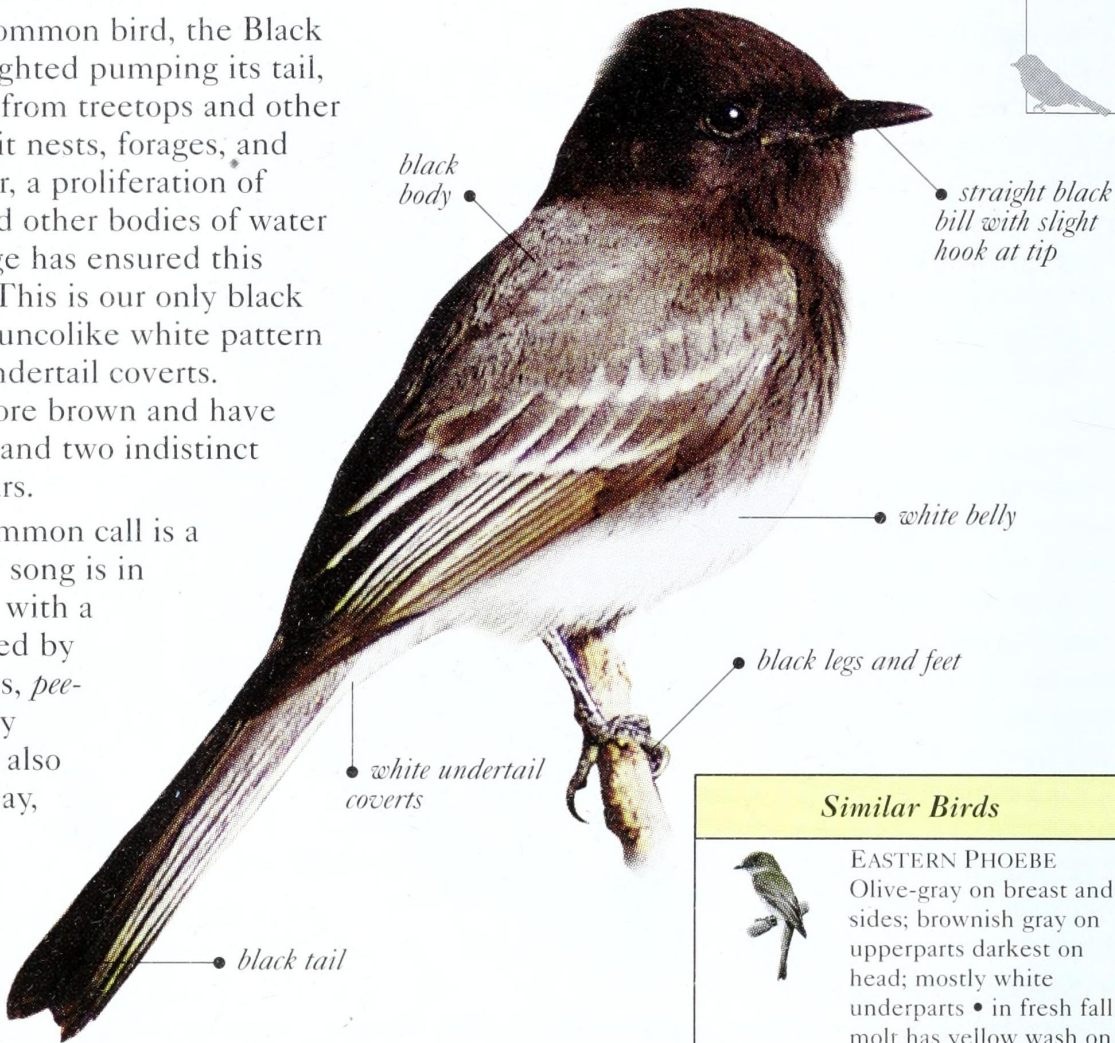
• **BEHAVIOR** Solitary or in pairs. Found near streams, rivers, cattle tanks, ponds, lakes, and towns – wherever there is much water. Pumps tail up and down. Often hunts from a low, shaded perch where it watches for insects and swoops down to catch them in midair. Occasionally catches food from water's surface, ground, or vegetation. Coughs up indigestible insect parts in the form of pellets. Sometimes eats small fish caught at water's surface.

• **BREEDING** Monogamous. Solitary nester.

• **NESTING** Incubation 15–17 days by female. Altricial young stay in nest 14–21 days. Fed by both sexes. 2–3 broods per year.

• **POPULATION** Common near water. Accidental in East.

• **CONSERVATION** Artificial ponds are contributing to an increasing population.



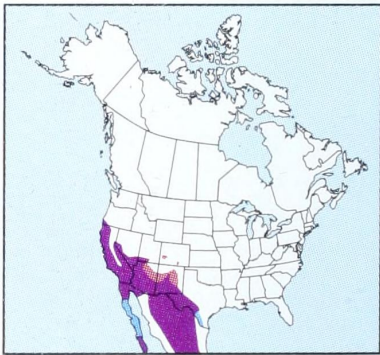
Similar Birds



EASTERN PHOEBE
Olive-gray on breast and sides; brownish gray on upperparts darkest on head; mostly white underparts • in fresh fall molt has yellow wash on underparts • emphatic *FEE-be!* voice.



EASTERN KINGBIRD
Black head; blackish gray upperparts and wings; black tail with white terminal band; white underparts from chin to undertail coverts; black bill, legs, and feet; does not bob tail.



Flight Pattern	
	
Weak fluttering buoyant flight with shallow wing beats. Sallies from perch to catch insects in air with audible snap of bill, returning to same or nearby perch.	

Nest Identification	
Shape 	Location   

Adherent • made of mud pellets and moss • lined with vegetation, including grass, weeds, and roots, as well as bark and hair • attached to vertical surface or on shelf or beam • built by female • 3–6 white eggs with occasional reddish brown spots; ovate to short ovate, occasionally short subelliptical, 0.7 x 0.6 inches.

Plumage Sexes similar	Habitat   	Migration Most do not migrate	Weight 0.7 ounce
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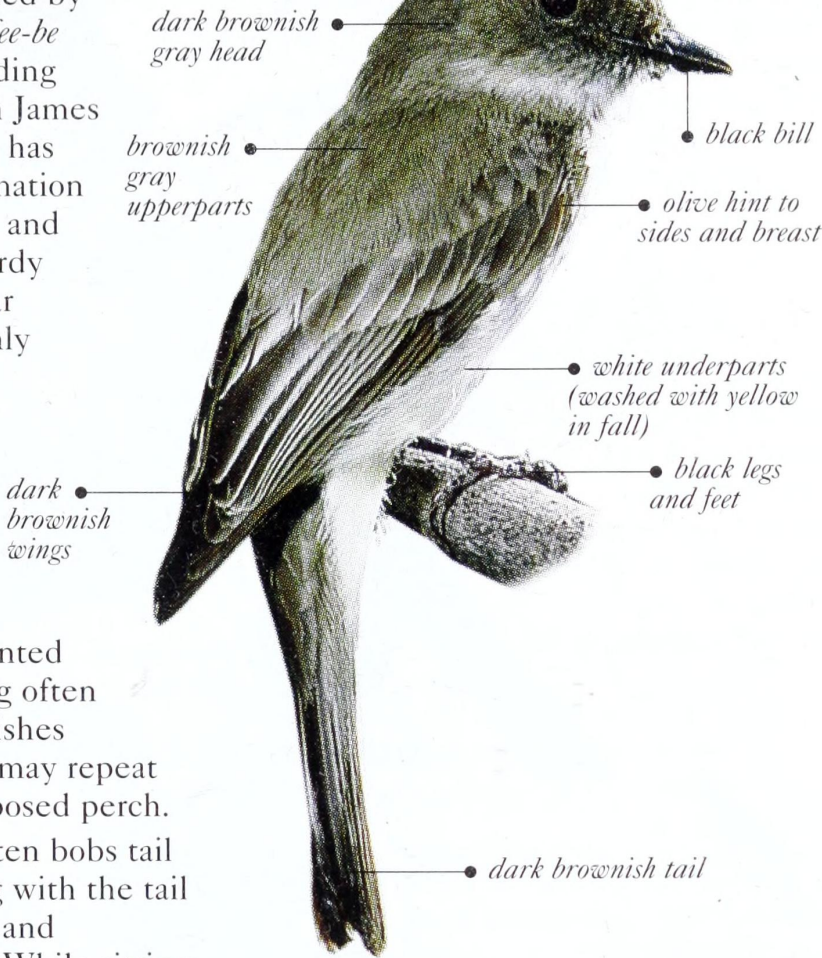
DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Sayornis phoebe</i>	Length 7 inches	Wingspan 11.5 inches
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EASTERN PHOEBE

An early migration makes the Eastern Phoebe a common harbinger of spring north of the Mason-Dixon Line. It is easily identified by its wagging tail and distinctive, harsh *fee-be* calls. The subject of the first bird-banding experiment in North America, by John James Audubon in 1840, the Eastern Phoebe has provided researchers with much information about longevity, site fidelity, dispersal, and migratory movements. Phoebes are hardy birds that often winter near water as far north as the Ohio River. This is the only species of flycatcher to winter in the eastern United States. In the bird's nesting range it seems almost every concrete bridge and culvert over small to medium streams has a phoebe nest beneath it.

- **SONG** Sharp *chip* is one of most common calls. Also issues brusque pointed *FEE-be* accented on first syllable. Song often repeated, especially when male establishes territory and attempts to attract mate; may repeat many times per minute from high, exposed perch.
- **BEHAVIOR** Solitary or in pairs. Often bobs tail when perched, especially after landing with the tail swept downward, then raised upward, and sometimes pushed sideways in an arc. While sitting atop tree branches and other perches, watches for insects and sallies to catch them in midair. Also catches food in foliage and on ground. In addition to insects, also eats small fish, berries, and fruit.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation about 16 days by female. Altricial young stay in nest 15–16 days. Fed by both sexes. 2 broods per year, sometimes 3 in the South.
- **POPULATION** Common and increasing.

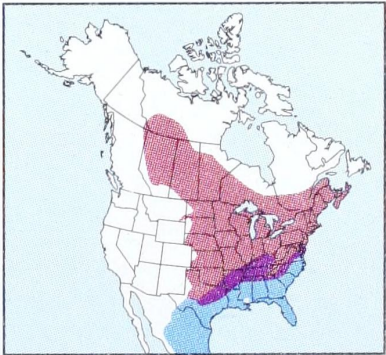


Similar Birds



EASTERN WOOD-PEWEE
Darker underparts; yellowish lower mandible; 2 whitish wing bars; does not pump tail; different voice.

- **BIRDHOUSES** Accepts nesting ledges glued to vertical walls under concrete bridges.
- **CONSERVATION** Neotropical migrant. Parasitized by cowbirds. Buildings, dams, bridges, and culverts have provided more nesting areas.



Flight Pattern



Weak buoyant fluttering flight with shallow wing beats. Hawks insects by flying from perch and taking insect in flight with audible pop of the mandibles.

Nest Identification

Shape  Location 

Abandoned Nests

Mud pellets covered with moss • lined with grass, weeds, leaves, hair, and feathers • often built on top of remains of old nest • attached to a vertical wall or on a shelf or beam • built by female • 2–8 white eggs with occasional reddish brown spots; oval, 0.8 x 0.6 inches.

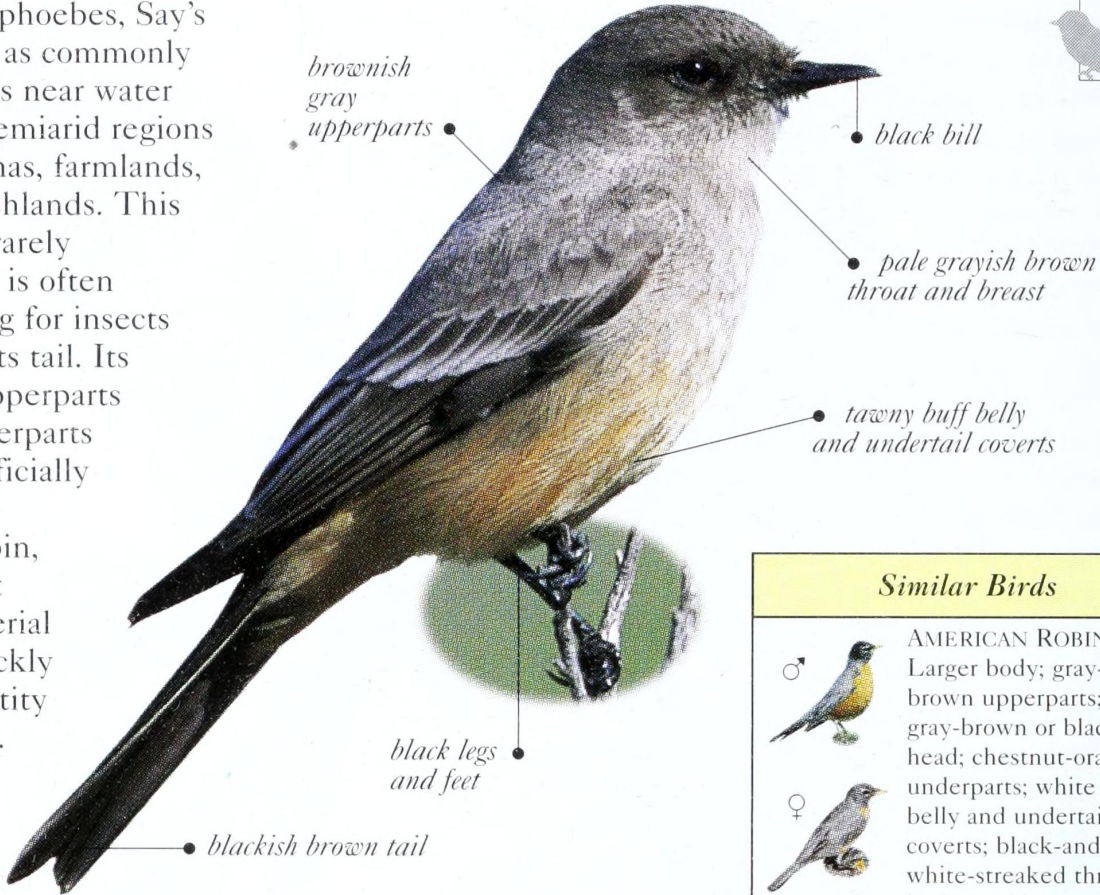
Plumage Sexes similar	Habitat 	Migration Most migrate	Weight 0.7 ounce
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DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Sayornis saya</i>	Length 7.5 inches	Wingspan 12.5 inches
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SAY'S PHOEBE

Unlike other phoebes, Say's Phoebe is not as commonly tied to habitats near water but inhabits semiarid regions such as savannas, farmlands, and open brushlands. This active bird is rarely sedentary and is often spotted darting for insects and wagging its tail. Its gray-brown upperparts and rusty underparts make it superficially resemble the American Robin, but its upright posture and aerial acrobatics quickly reveal its identity as a flycatcher.



- **SONG** Often sings at dawn. Repertoire includes plaintive downslurred whistled *phée-ur* or *chu-weer*; often repeated many times. In fluttering flight also issues abrupt *pit-tse-ar*.
- **BEHAVIOR** Solitary or in pairs. Conspicuous. Perches at low to middle levels on branches, wires, posts, buildings, etc. From perch or while hovering watches for insects and swoops down to catch them in midair with an audible snap of the mandibles. This bird rarely eats berries. Sometimes regurgitates pellets of insect exoskeletons.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 12–14 days by female. Altricial young stay in nest 14–16 days. Fed by both sexes. 1–2 broods per year, sometimes 3 in the Southwest along the Mexican border.

Flight Pattern

Weak fluttering buoyant flight with shallow wing beats. Hawks from perch to catch flying insects; also hovers.

Nest Identification

Shape

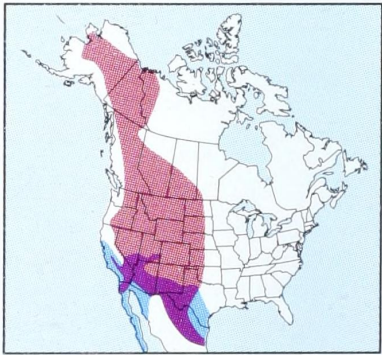
Location

- **POPULATION** Stable and fairly common. Casual in eastern US.
- **CONSERVATION** Neotropical migrant. Rare host to cowbird parasitism.

Similar Birds

AMERICAN ROBIN
Larger body; gray-brown upperparts; dark gray-brown or black head; chestnut-orange underparts; white lower belly and undertail coverts; black-and-white-streaked throat; broken white eye ring; yellow-orange bill with dark tip; largely terrestrial.

VERMILION FLYCATCHER
Female is smaller; gray-brown upperparts and crown; gray-brown lores and auriculars; white supercilium; blackish tail; white chin; white neck and breast with dusky streaking; salmon-peach belly and undertail coverts.



Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.7 ounce
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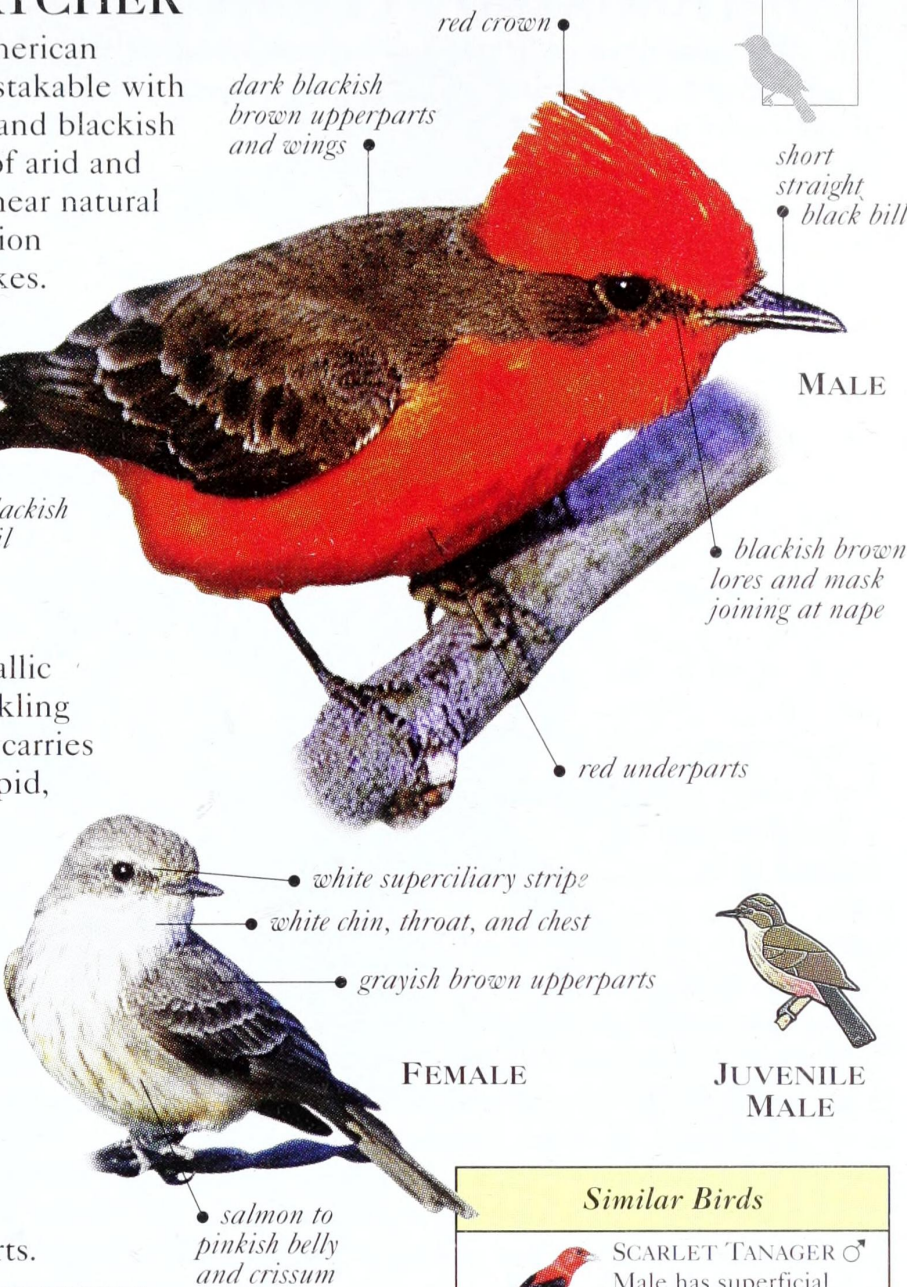
DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Pyrocephalus rubinus</i>	Length 6 inches	Wingspan 9.5 inches
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VERMILION FLYCATCHER

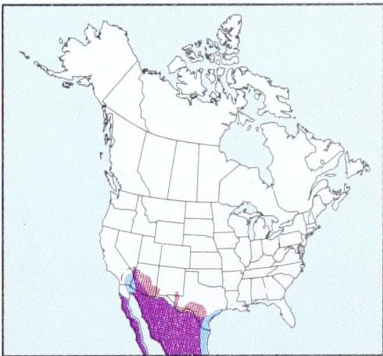
This is the most colorful North American flycatcher. The adult male is unmistakable with its bright red head and underparts and blackish eye mask, back and wings. A bird of arid and semiarid regions, it is often found near natural watercourses and man-made irrigation ditches, cattle tanks, ponds, and lakes. The juvenile male is similar to the adult male but its color appears washed-out; the female juvenile is similar to the adult female but has a yellow wash on the belly and crissum.

- **SONG** Call is piercing, thin metallic *pseeup*. Courting male sings soft tinkling elated *pit-a-see! pit-a-see!*, which he carries aloft in display flight; then sings rapid, accelerating *pi pi-li-li-li-sing* while hovering with crest raised and tail spread before slowly fluttering back down to perch.
- **BEHAVIOR** Solitary or in pairs. Tame and approachable. Wags and pumps tail like a phoebe. Often perches low. Spots prey while perched, then hovers and catches it in air. Takes many bees. Sometimes feeds on ground. Coughs up indigestible parts.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 14–15 days by female. Altricial young stay in nest 14–16 days. Fed by both sexes. 2 broods per year.
- **POPULATION** Fairly common in open and semiopen riparian areas. Rare vagrant to Gulf Coast and coastal southern California. Casual to accidental in the East.



Similar Birds

SCARLET TANAGER ♂
Male has superficial resemblance • larger; scarlet head and body; black wings and tail; stout pale bill.



Flight Pattern

Weak, fluttering direct flight with shallow wing beats. Sallies to snatch flying insects, then returns to perch. Hovers in display flight and when foraging.

Nest Identification

Shape Location

• **CONSERVATION** Neotropical migrant. Rarely parasitized by cowbirds. Texas and Southeastern California breeding populations declining for unknown reasons.

Small sticks, grass, weeds, rootlets, and feathers often held together by spider webs and hair; decorated with lichens • lined with feathers, down, and hair • in fork in horizontal branch 4–60 feet above ground • built by female • 2–4 whitish eggs with bold spots of brown, gray, and lavender; oval to short oval, 0.7 x 0.55 inches.

Plumage Sexes differ	Habitat	Migration Most migrate	Weight 0.5 ounce
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DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Myiarchus cinerascens</i>	Length 8.5 inches	Wingspan 14 inches
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ASH-THROATED FLYCATCHER

This bird inhabits a wide range of habitats, from desert scrub below sea level to mountain regions of oak and piñon-juniper more than 9,000 feet high. It has the typical color pattern of *Myiarchus* flycatchers, with grayish brown upperparts, gray from the chin to lower breast, yellowish underparts, and rufous in the long tail. The visual key to its identity lies in the paleness of the underparts, which include a whitish throat and pale yellowish belly and undertail coverts.

• **SONG** Most often a coarse *pwrrrit*, like a referee's whistle, and a short *puip* or *huit*. On breeding grounds sings a rolling nasal *ka-brik, ka-brik*. Dawn song is varied arrangement of the calls.

• **BEHAVIOR**

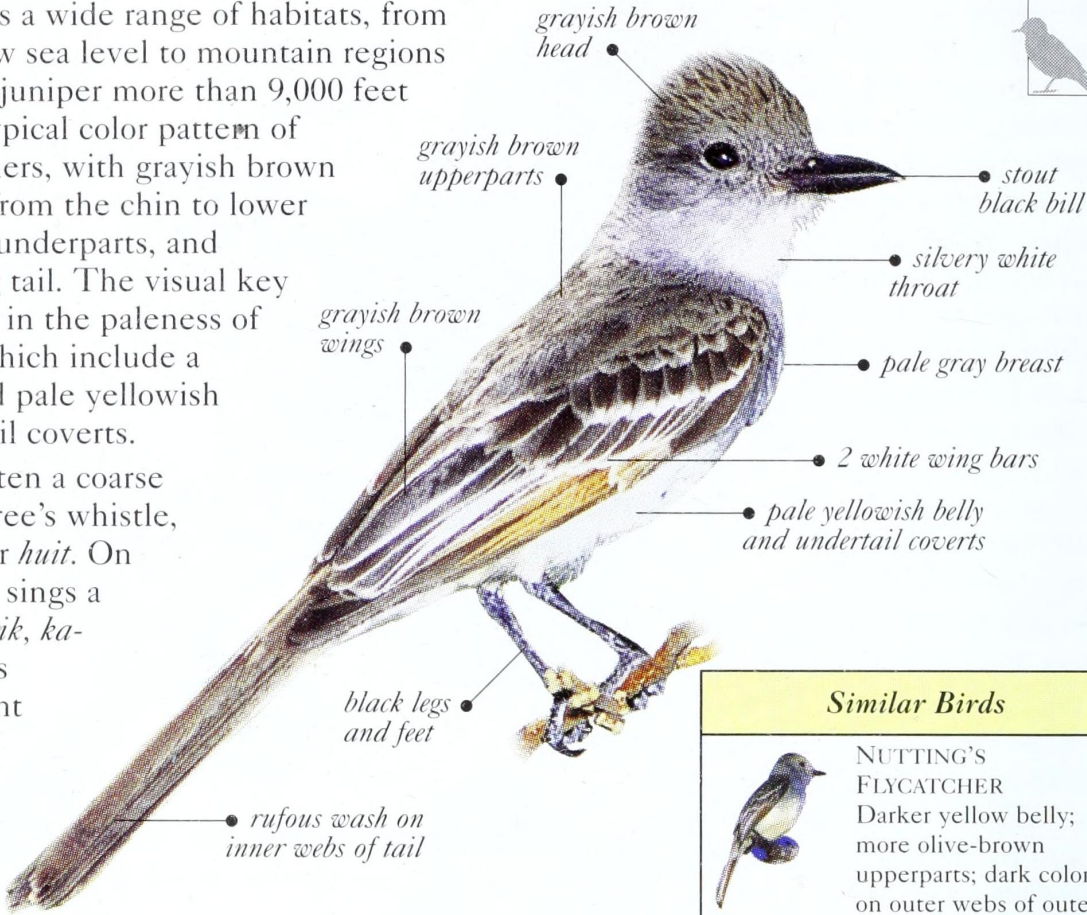
Solitary or in pairs. Seeks prey while perched, then hovers above and drops down on it or sallies from perch to catch it in flight. When hawking often does not return to same perch. Sometimes feeds from ground. Eats variety of insects, spiders, and caterpillars; also fruit, berries, and small lizards. Occasionally defends territory from large birds passing through, including hawks. Sometimes usurps nesting cavities from woodpeckers, forcing them to begin another hole elsewhere.

- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 15 days by female. Altricial young stay in nest 14–16 days. Fed by both sexes. 1–2 broods per year.
- **POPULATION** Common to fairly common in wide variety of habitats. Rare to accidental in fall and winter in the East.

- **BIRDHOUSES** Uses bluebird nesting boxes and other nesting boxes with sufficient-sized openings to allow them access.
- **CONSERVATION** Stable and increasing in some areas. Neotropical migrant.

Flight Pattern		
Fairly strong flight with shallow wing beats. Sallies from perch to snatch insects in flight. Sometimes hovers above foliage or ground before dipping to catch prey.		
Nest Identification		
Shape	Location	

Made of weeds, grass, twigs, and rootlets • often lined with hair and feathers • in tree cavity, man-made boxes, and woodpecker holes in trees, poles, and posts 3–20 feet above ground • built by both sexes • 3–7 creamy white eggs blotched with brown and lavender; oval to short oval, 0.9 x 0.7 inches.



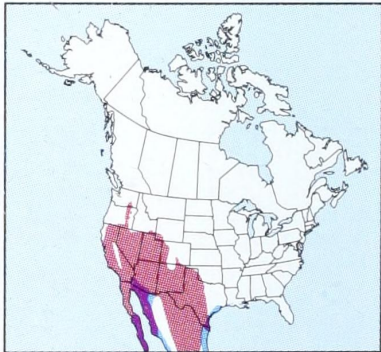
Similar Birds



NUTTING'S FLYCATCHER
Darker yellow belly; more olive-brown upperparts; dark color on outer webs of outer tail feathers does not extend across tips; orange mouth lining; different voice • accidental in winter in southeastern Arizona.



DUSKY-CAPPED FLYCATCHER
Smaller; brighter lemon-yellow underparts; rufous-edged secondaries; tail largely lacks rufous; different voice • only in the West



Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.0 ounce
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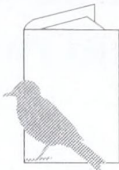
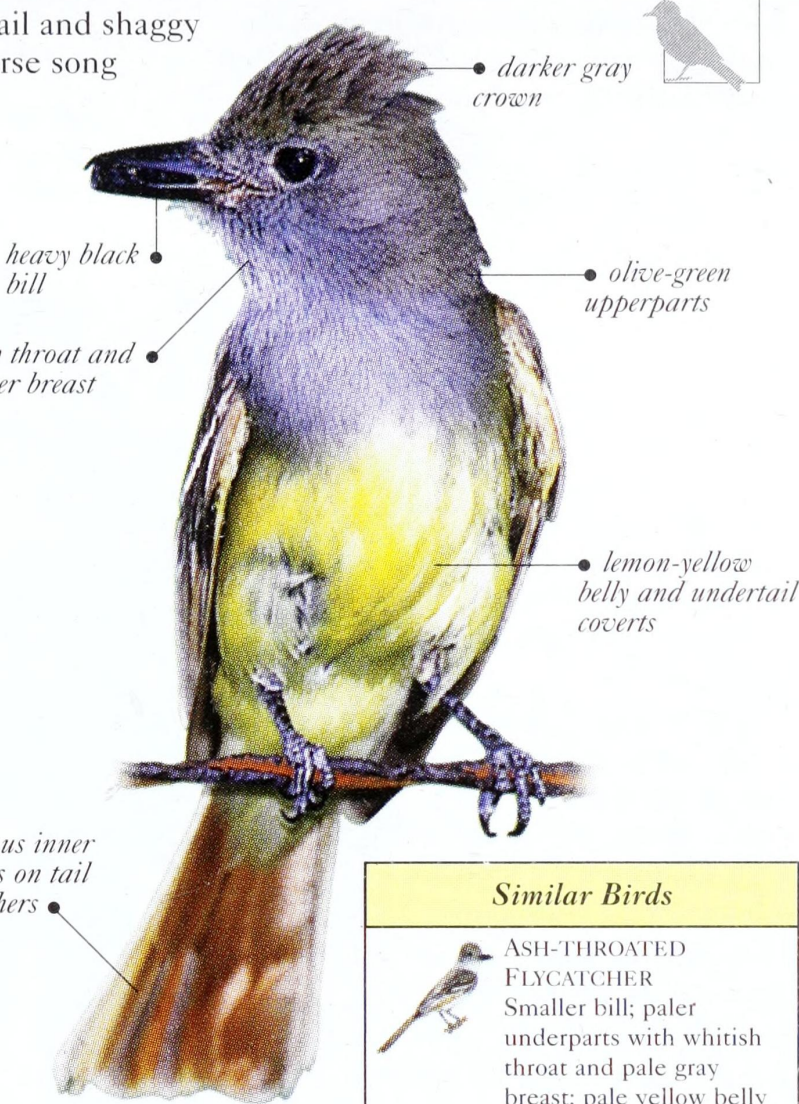
DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Myiarchus crinitus</i>	Length 8.5 inches	Wingspan 12–14 inches
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GREAT CRESTED FLYCATCHER

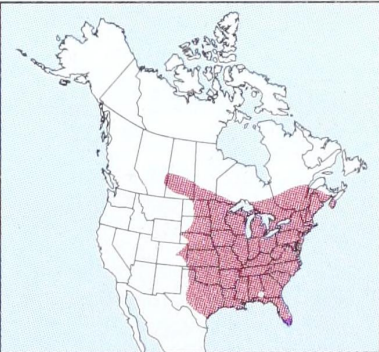
This big eastern flycatcher with a rusty tail and shaggy crest stays hidden in tall trees, but its coarse song is heard throughout the forest. Although similar in size to the Eastern Kingbird, the Great Crested Flycatcher prefers thickly wooded areas. Males defend their large territories by battling in the air with other males, clawing one another and sometimes pulling out feathers. Like some other members of its genus, it often tops off the nest with a discarded snakeskin, but in today's throwaway society it more readily finds cellophane and plastic. Perched birds show two white wing bars and cinnamon-rufous-edged primaries.

- **SONG** Bold melodic whistle of *weheep!* and rolling *prrrrrrrrrreeet*. *Weheep* notes often given in rapid succession in series of 3 or more.
- **BEHAVIOR** Solitary or in pairs. Often ranges high in the canopy, sitting on exposed limbs in the crown of a tall tree or on top of a dead snag. Catches prey higher above ground than most flycatchers. Sallies from perch to snatch insects from foliage and catch them in midair, often returning to same or nearby perch. Eats variety of larger insects, including beetles, crickets, katydids, caterpillars, moths, and butterflies. Also eats some fruits and berries. Male chases female in courtship flight close to possible nesting cavity.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 13–15 days by female. Altricial young remain in nest 12–21 days. Fed by both sexes. 1 brood per year.
- **POPULATION** Common in open wooded lots and on forest



Similar Birds

-  **ASH-THROATED FLYCATCHER**
Smaller bill; paler underparts with whitish throat and pale gray breast; pale yellow belly and crissum; brown-tipped outer tail feathers; different voice.
-  **BROWN-CRESTED FLYCATCHER**
Larger; bigger heavier bill; paler gray throat and breast; paler yellow belly; different voice.



Flight Pattern



Fairly swift buoyant direct flight. Hawks insects in flight, returning to perch. Hovers over foliage or ground then dips for food.

Nest Identification

Shape  Location 

- edge. Rare on California coast in autumn migration.
- **BIRDHOUSES** Sometimes uses nest boxes placed on trees or buildings 6–50 feet high.
 - **CONSERVATION** Neotropical migrant. Vulnerable to habitat loss.

Filled and lined with grass, weeds, bark strips, rootlets, feathers, fur, snakeskin, onion skin, cellophane, and clear plastic • in cavity, abandoned holes of other birds, or bird boxes • built by both sexes • 4–8 creamy white to pale buff eggs marked with brown, olive, and lavender; ovate to short ovate, sometimes elliptical ovate or elongate ovate, 0.9 x 0.67 inches.

Plumage Sexes similar	Habitat   	Migration Migratory	Weight 1.2 ounces
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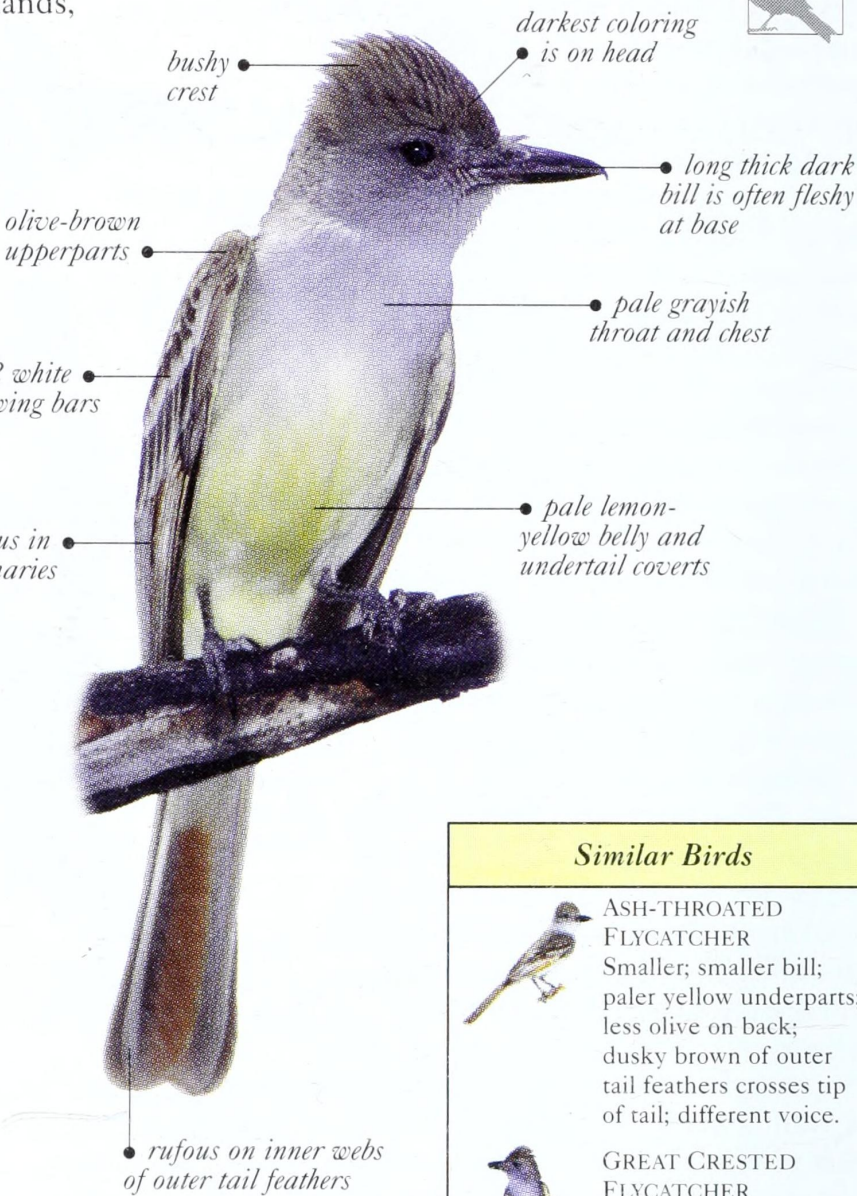
DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Myiarchus tyrannulus</i>	Length 8.75 inches	Wingspan 12–14 inches
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BROWN-CRESTED FLYCATCHER

This flycatcher makes its home in the sycamore canyons, mountain woodlands, saguaro desert, or any arid country where the trees are large enough for its nesting holes. Like other flycatchers the males aggressively defend their territory during breeding season, often attacking other birds with their claws and pulling out feathers. Their victims may be other flycatchers, woodpeckers, or wrens, all potential threats to take over the nesting cavity. When excited it may raise its bushy crest.

- **SONG** Rough loud *come HERE, come HERE* or *whit-will-do, whit-will-do!* Also makes sharp calls of *bew*, *p-wit*, or *purreet*.
- **BEHAVIOR** Solitary or in pairs. Hawks flying insects or gleans them from foliage or ground. Occasionally catches and eats hummingbirds. Also takes small lizards, berries, and fruits. Hovers and plucks prey from trees and shrubs. Perches to eat fruits and berries.
- **BEHAVIOR** Monogamous. Solitary nester. Very defensive around nest cavity, driving other birds away.
- **NESTING** Incubation 13–15 days by female. Altricial young stay in nest 12–21 days. Fed by both sexes. 1 brood per year.



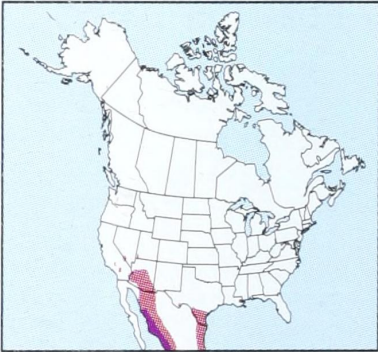
Similar Birds



ASH-THROATED FLYCATCHER
Smaller; smaller bill; paler yellow underparts; less olive on back; dusky brown of outer tail feathers crosses tip of tail; different voice.



GREAT CRESTED FLYCATCHER
Deeper, brighter yellow belly and crissum; darker gray throat and chest; different voice.



Flight Pattern



Purposeful buoyant rapid wing beats. Sallies to take insects in air and returns to perch. Also hovers and dips for prey.

Nest Identification

Shape

Location

- **POPULATION** Fairly common. Casual to the Gulf Coast and Florida.
- **CONSERVATION** A neotropical migrant that winters in Mexico.

Lined with plant fibers, animal hair, and feathers; often adds snakeskin, onion skin, or clear plastic • in holes in giant cactus, tree, man-made structure, or abandoned woodpecker holes, 5–30 feet above ground • built by both sexes • 3–6 white to pale buff eggs with brown and lavender blotches; oval to short oval, 1 x 0.8 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.5 ounces
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DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Myiarchus sagrae</i>	Length 8 inches	Wingspan 12 inches
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LA SAGRA'S FLYCATCHER

Like many flycatchers this bird makes its home near woodlands and forests where the trees are large enough for its nesting holes. Vagrants of this Caribbean native species occasionally have made their way to Florida. This flycatcher perches and forages in the middle levels of the interior of thickets and hovers over foliage to pick off insects, fruits, and berries, behavior that makes it difficult to see. Often its presence is first revealed by its voice.

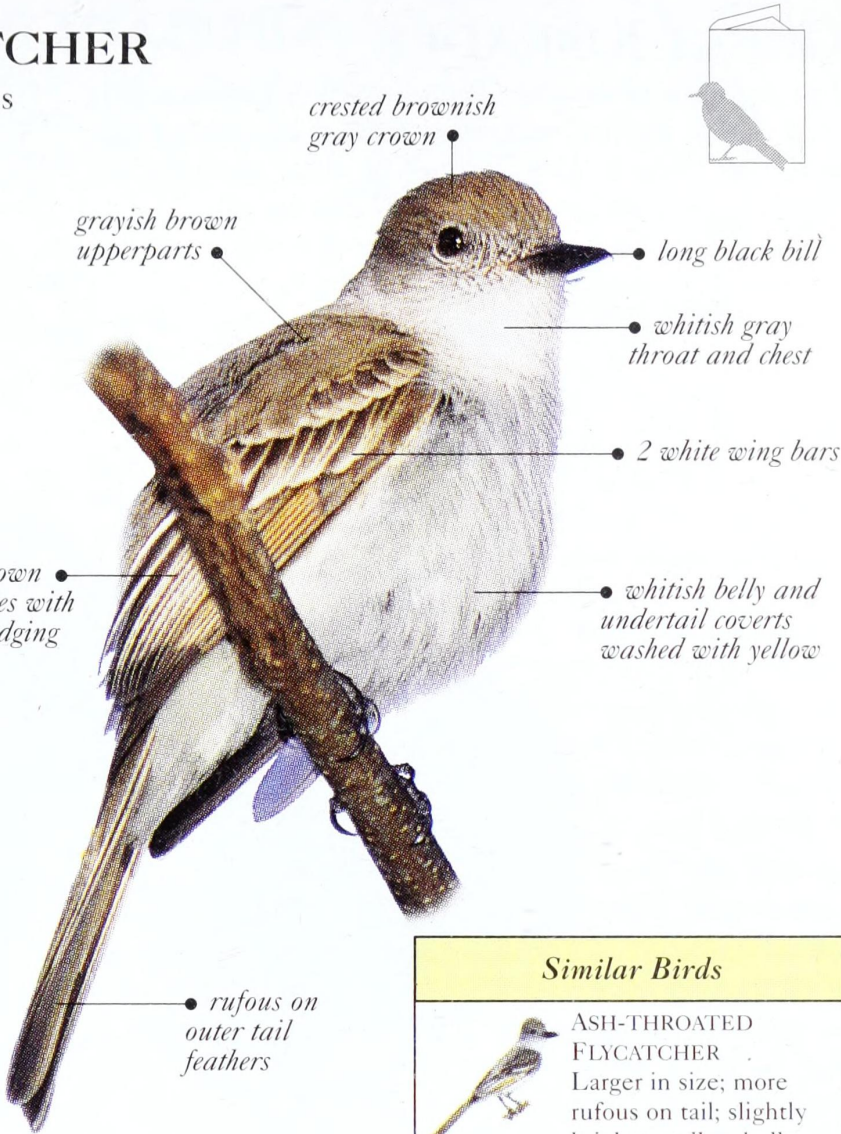
• **SONG** A squeaky *wink*, *wink* often given in 2s or 3s.

• **BEHAVIOR** Solitary (only single birds have been seen in the US). Does not perch in exposed positions like other flycatchers of its genus; remains below the canopy and in the interior of shrubs and thickets. The back of the crown, the occipital region, bears a slight crest that is often raised when the bird is alarmed. Spots prey from perch and hovers to pluck it off foliage. Hawks flying insects beneath crowns of trees. Eats insects, fruits, and berries. In Bahamas, Grand Cayman, and Cuba, inhabits pine forests, mangroves, cutover forests and scrub, and tropical lowland evergreen forests.

• **BREEDING** Monogamous. Solitary nester.

• **NESTING** Breeding biology poorly known. Incubation estimated at 12–14 days by female. Altricial young estimated to stay in nest 14–16 days. Fed by both sexes. 1–2 broods per year.

• **POPULATION** Casual to accidental in southern Florida; accidental in Alabama.



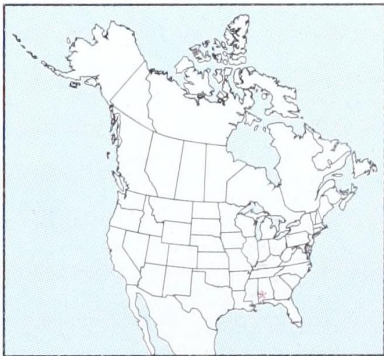
Similar Birds



ASH-THROATED FLYCATCHER
Larger in size; more rufous on tail; slightly brighter yellow belly; different voice.



GREAT CRESTED FLYCATCHER
Darker gray throat and breast; bright lemon-yellow belly and crissum; more rufous in tail; heavier bill; darker gray-brown face and head; different voice.



Flight Pattern

Weak fluttering flight with shallow wing beats. Often hovers before dipping for prey. Sallies to take flying insects.

Nest Identification

Shape Location

Lined with grass, weeds, hair, feathers, and twigs • in natural tree cavity; sometimes uses abandoned woodpecker hole • built by both sexes • 3–5 creamy white eggs blotched and streaked with reddish brown, purple, gray, and black; oval to short oval, 0.8 x 0.6 inches.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 0.6 ounce
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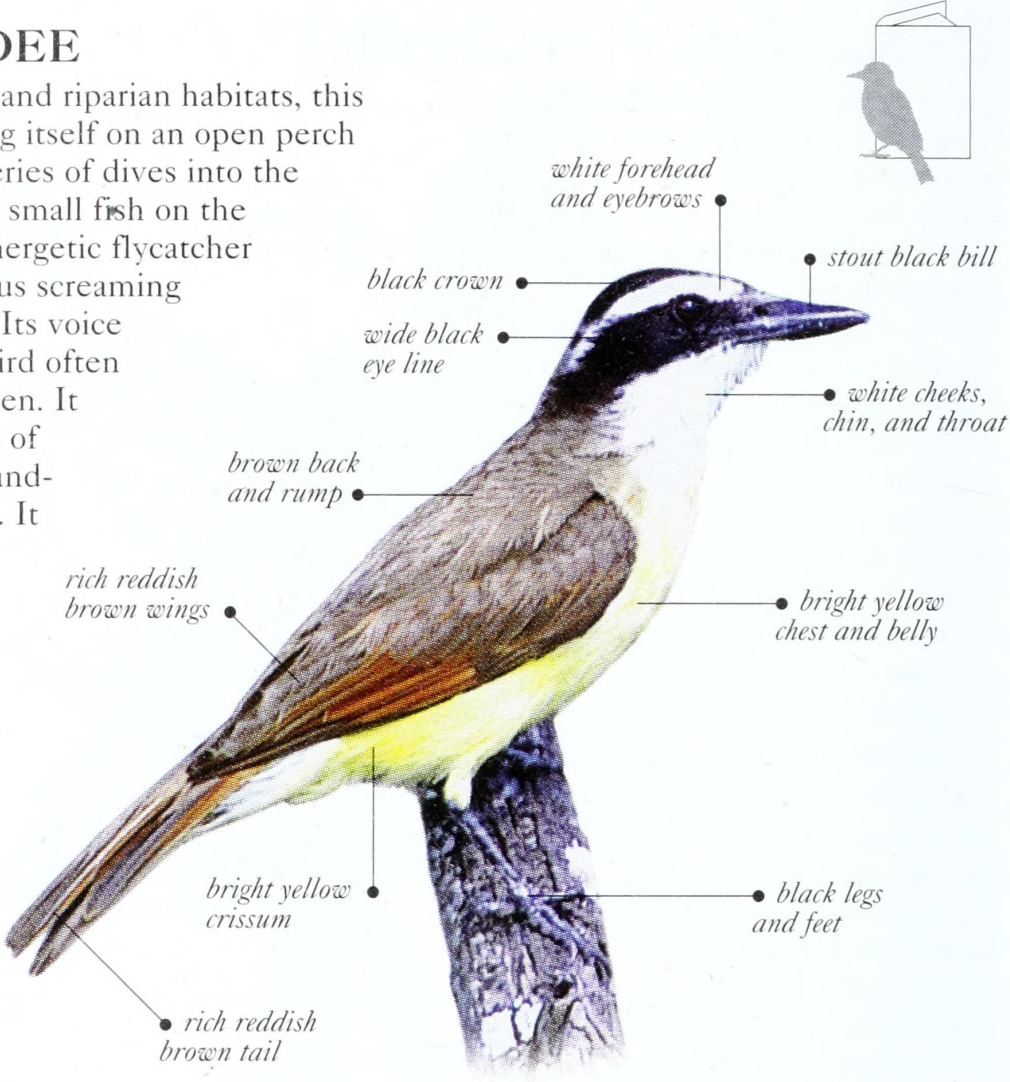
DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Pitangus sulphuratus</i>	Length 9.75 inches	Wingspan 16 inches
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GREAT KISKADEE

Inhabiting wet woodlands and riparian habitats, this bird can be spotted sunning itself on an open perch to dry its feathers after a series of dives into the water for aquatic insects or small fish on the surface. This large stout energetic flycatcher is named for its loud raucous screaming call of *kiss-ka-dee* or *k-reeah*! Its voice carries a long way, so the bird often is heard long before it is seen. It is the only flycatcher north of Mexico with a bold black-and-white-striped head pattern. It also has a yellow crown patch, which usually is concealed. In flight the bright yellow underparts and underwing linings contrast sharply with the rufous wings and tail.

- **SONG** Slow clear loud raucous *kiss-ka-dee*. Also makes bold screaming *cree-ah*.
- **BEHAVIOR** Solitary or in pairs. Conspicuous. Sits on perch to spot prey, then dives into water to catch fish and tadpoles. Sallies to catch prey, then returns to perch and often beats the victim on the branch several times before eating it. Catches insects in flight. Eats a variety of crawling and flying insects. Also catches frogs, small lizards, baby birds, and mice. Will eat fruits and berries when insects are not available. Noisy and aggressive; actively drives away much larger birds entering its territory.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Breeding biology poorly known. Incubation by female estimated at 13–15 days. Altricial young estimated to stay in nest 12–21 days. Fed by both sexes. 2–3 broods per year.



Similar Birds

None in North America.

Flight Pattern

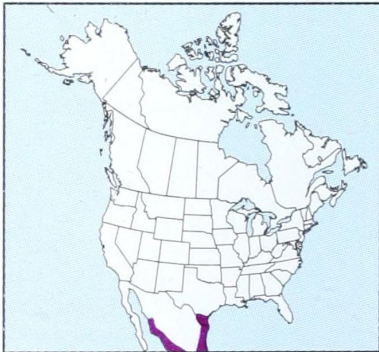
Slow fluttering direct flight with shallow wing beats. Sallies to catch prey, then returns to perch.

Nest Identification

Shape

Location

Grass, weeds, bark strips, Spanish moss, and other plant fibers • in thorny tree, palm tree, or shrub or on metal braces on utility poles 6–50 feet above ground • sometimes refurbish old nest • built by both sexes • 2–5 creamy white eggs dotted with dark brown and lavender; oval to short oval, 1.1 inches long.



Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 2.1 ounces
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DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Myiodynastes luteiventris</i>	Length 8.5 inches	Wingspan 14.5 inches
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SULPHUR-BELLIED FLYCATCHER

The only native US flycatcher with heavy streaking on the upperparts and underparts, this native of Mexico and Central America also breeds in the wooded mountain canyons and along the woodland streams of southern Arizona. Perched high, and sometimes somewhat concealed, in lofty trees like sycamores and walnuts, it can be recognized by its loud call, which sounds like the squeaking of a rubber duck bath toy.

• **SONG** Courting male and female sing a high noisy *kee-ZE-ik* or shrieking grating *PEE-PEE-pee-yah*. In early morning sings a soft repeated *tree-le-ree-re*.

• **BEHAVIOR** Solitary or in pairs. Often sits on perch high in treetops to spot prey, then hawks it in flight. Also hovers above foliage

or branches, dipping to pick up food. Returns to perch to eat. Eats insects, including caterpillars, and spiders. Also eats fruits and berries. A patch of yellow in the center of crown, which usually is hidden, may be displayed to show passion or aggression during courtship. Courting male and female often chase each other around and through treetops.

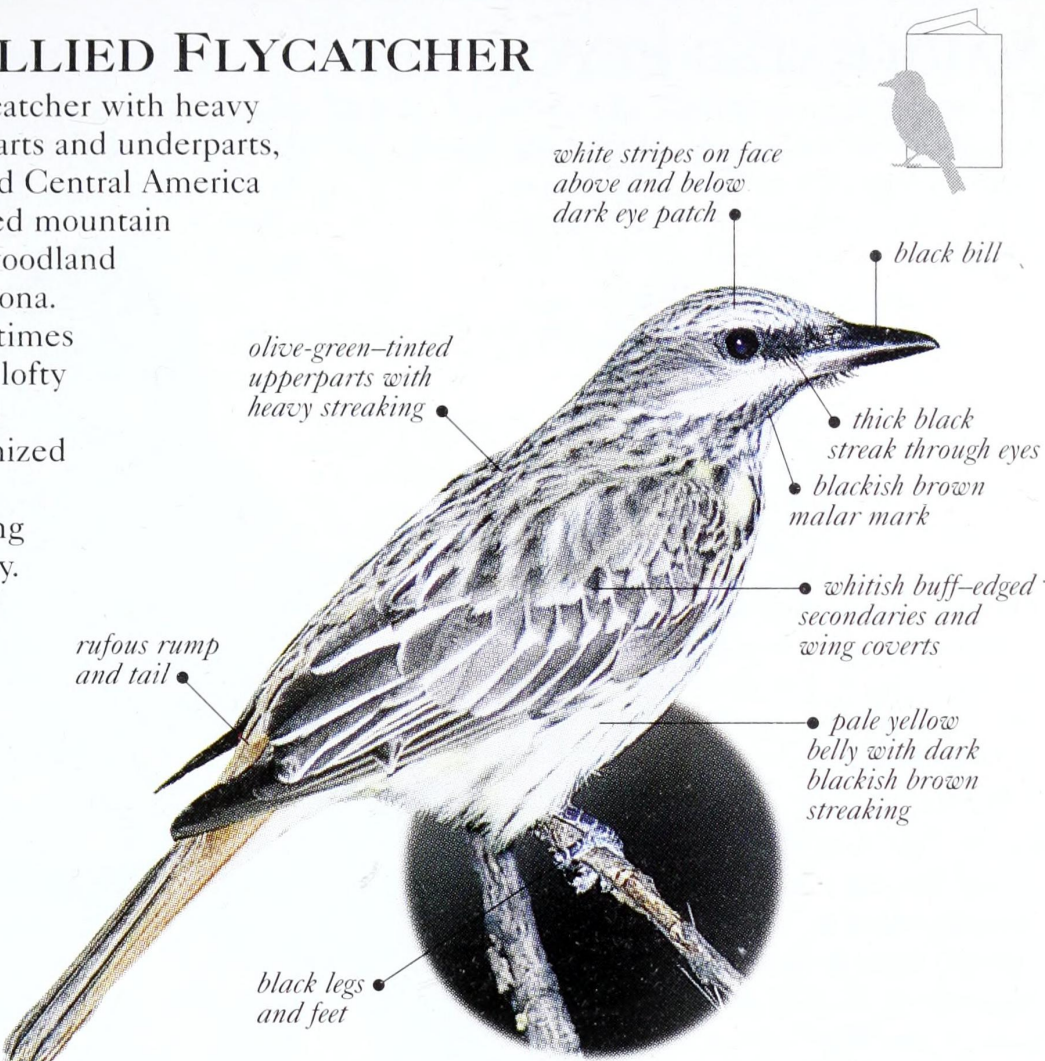
• **BREEDING** Monogamous. Solitary nester. Begins nesting later in the year than most other flycatchers.

• **NESTING** Incubation 15–16 days by female. Altricial young stay in nest 16–18 days. Fed by both sexes. 1 brood per year.

• **POPULATION** Fairly common but local in mountain canyons, especially along streams with large trees. Casual in southern California and along Gulf Coast. Accidental elsewhere.

• **BIRDHOUSES** Occasionally will nest in nest boxes.

• **CONSERVATION** Neotropical migrant.



Similar Birds
None in North America.



Flight Pattern		
Somewhat slow fluttering flight with shallow wing beats. Sallies from perch to catch flying insects. Hovers, dips for prey.		

Nest Identification	
Shape	Location

Fine leaf stems, pine needles, and leaves piled within 1 inch of hole • on platform made of sticks inside knothole of tree, old flicker hole, or nest box 20–50 feet above ground • built by female • 2–4 white to pale buff eggs heavily spotted with reddish browns and lavender; oval to short oval, 1 inch long.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.6 ounces
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DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Empidonomus varius</i>	Length 7.25 inches	Wingspan 11.5 inches
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VARIEGATED FLYCATCHER

On two or three occasions, this native of South America has made navigational errors during migration and been found in eastern North America. The Variegated Flycatcher is one of several species of heavily streaked flycatchers that are fairly widespread in the neotropics.

In North America any heavily streaked flycatcher with yellow-tinged underparts and a brown-and-white facial pattern, found outside the southwestern range and mountain-canyon habitats of the Sulphur-bellied Flycatcher, needs to be very carefully studied, and if possible photographed, to confirm the individual's identity..

- **SONG** Usually silent. A gently whistled, high thin *zreeee*. Also an abrasive *chee-chee-chuuuuu*.
- **BEHAVIOR** Solitary. Eats mostly insects, berries, and fruits. Perches low to spot insects, which it catches while flying, returning to perch to eat. Hovers over foliage to pick up insects or to eat berries and fruits.
- **BREEDING** Monogamous and solitary.
- **NESTING** Estimated incubation 14–16 days by female. Young altricial; stay in nest 18–19 days, fed by both sexes. 1–2 broods per year.



Flight Pattern

Weak fluttering direct flight on shallow wing beats. Sallies from perch to take flying insects, returning to perch. Hovers.

Nest Identification

Shape Location

Twigs, bark, leaf stems, and grasses • fork of horizontal branch, 8–25 feet above ground • built by both sexes • 3–4 white to pale buff eggs, heavily spotted with reddish browns; oval to short oval, 1 inch long.

Similar Birds

SULPHUR-BELLIED FLYCATCHER
Larger; brighter yellow underparts more heavily streaked; more rufous tail and rump; wider malar mark.



Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.0 ounces
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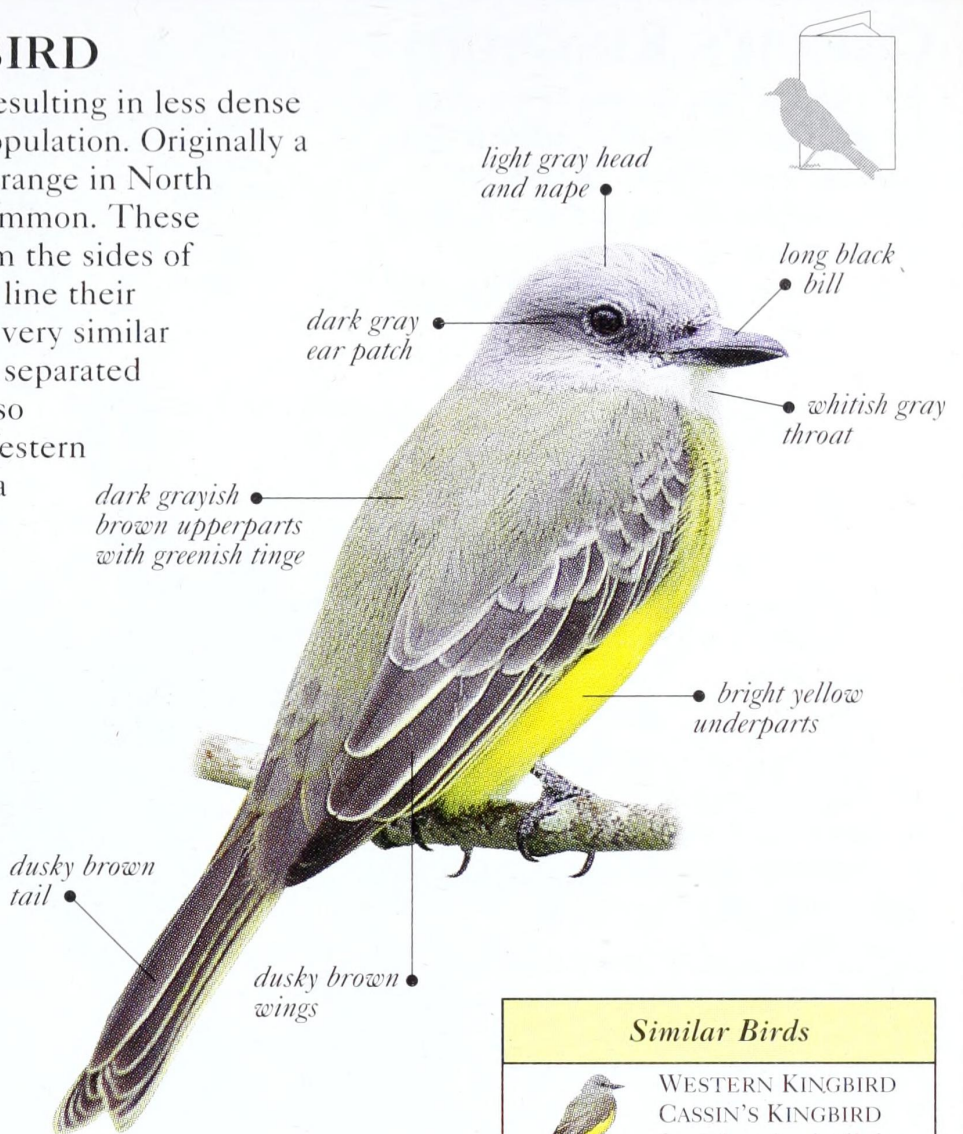
DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Tyrannus melancholicus</i>	Length 8–9.25 inches	Wingspan 15–16 inches
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TROPICAL KINGBIRD

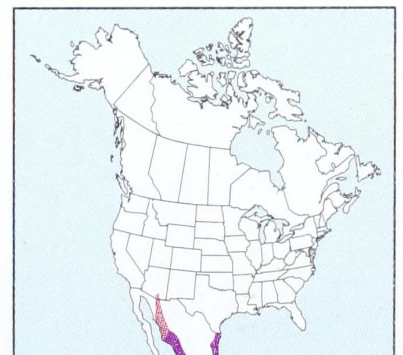
The demise of the rainforest, resulting in less dense forests, is boosting this bird's population. Originally a tropical bird, it is expanding its range in North America and becoming more common. These birds often gather horsehair from the sides of roads or fields, with which they line their nests. The Tropical Kingbird is very similar to Couch's Kingbird and is best separated from that species by voice. It also resembles the more common Western and Cassin's Kingbirds but has a longer bill and slightly notched dusky brown tail.

- **SONG** Squeaking, rapidly repeated *pip-pip-pip-pip*. Sings series of liquid trills. Often sings just before daylight, repeating song over and over.
- **BEHAVIOR** Solitary or in pairs. Hunts from conspicuous, often high, perches. Spots insects from perch, catches them in flight, and returns to perch to eat. Sometimes picks up food from ground. Often hovers over foliage or ground, dipping to pick up an insect or berry. Eats mainly insects but also takes frogs, fruits, and berries. Usually the last species of yellow-bellied flycatchers to return to US breeding grounds and the first to leave after the breeding season ends.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 15–16 days by female. Young stay in nest 18–19 days. Fed by both sexes. 1 brood per year.
- **POPULATION** Uncommon and somewhat local in lowlands near water in south Texas and Arizona. Casual in autumn and winter on the West Coast north to British Columbia. Accidental in the East.



Similar Birds

- | | |
|--|--------------------------|
| | WESTERN KINGBIRD |
| | CASSIN'S KINGBIRD |
| | COUCH'S KINGBIRD |
- Straight-edged tail tip; whitish to white edging on tail tip; shorter bill; lacks dark patch through eye; different voice.
- Greenish back; thicker bill; evenly spaced individual primary tips; different voice.



Flight Pattern

Weak fluttering flight with shallow wing beats. Sallies for insects in flight; returns to perch. Hovers before dipping for insects.		

Nest Identification

Shape	Location
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Twigs, grasses, stems, bark, and plant fibers • lined with plant down, moss, horsehair, and other fine materials • on tree branch 8–20 feet above ground • built by female • 3–5 creamy buff or pinkish eggs with blotches of brown and purple often concentrated on larger end; oval to short oval, 1 inch long.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.3 ounces
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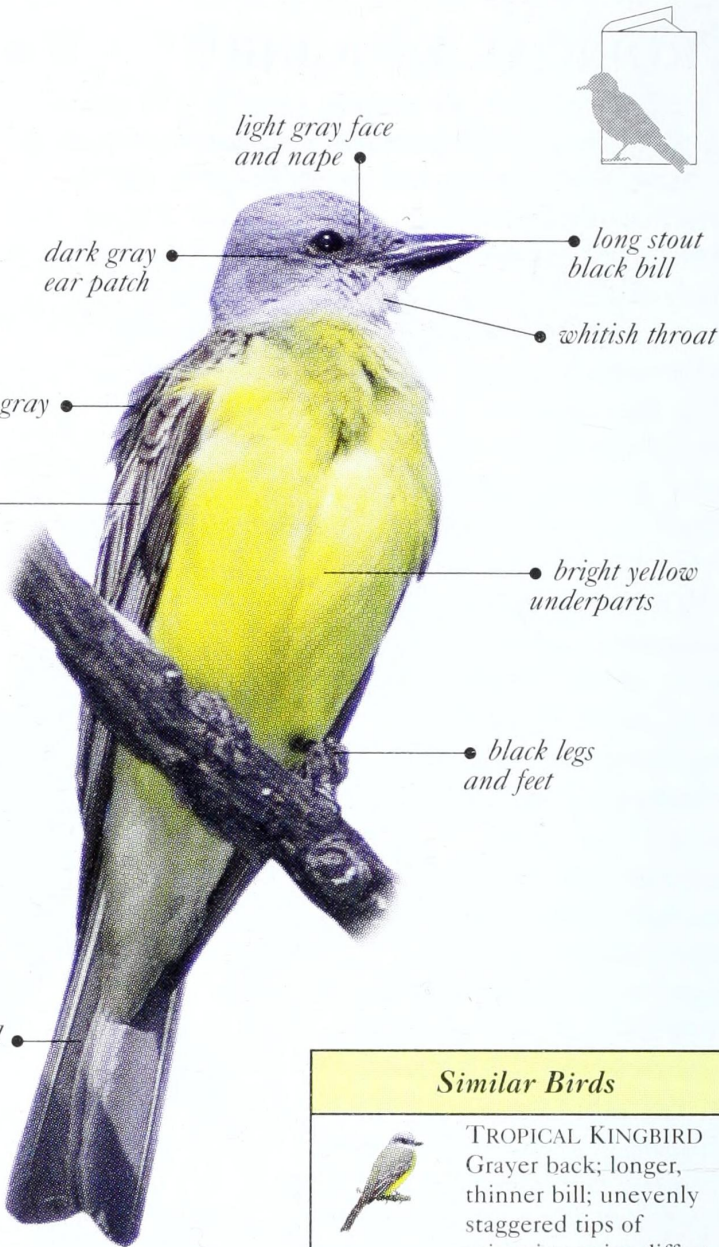
DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Tyrannus couchii</i>	Length 8–9.25 inches	Wingspan 15–16 inches
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COUCH’S KINGBIRD

This bird is very similar to the Tropical Kingbird but has subtle differences in plumage and bill size. In fact, it was once considered a race of the Tropical Kingbird, but in the 1980s it was declared a separate species. Tropical and Couch’s Kingbirds do not readily hybridize. Its breeding range in the United States is restricted to southern Texas, and it is best distinguished in the field by voice. Although primarily nonmigratory, birds in the northernmost parts of the breeding range are migratory.

- **SONG** A high, trilled, nasal *breeear* and a single-note or repeated *kip*. Predawn song is a series of rich whistles with abrupt inflections, *s’wee-s’wee-s’wee s’wee-I-chu*.
- **BEHAVIOR** Solitary or in pairs. Sometimes gregarious in winter. Perches and forages in middle to high levels. Sits on perch to spot prey. Sallies out to catch insects in midair. Hovers over foliage or ground, dipping down to pick up insects or berries. Eats various flying and crawling insects, also berries and fruits.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Breeding biology poorly known. Incubation by female estimated at 14–16 days. Young altricial; fed by both sexes. First flight at 18–20 days. 1 brood per year.

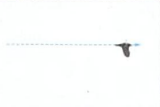


Similar Birds

-  **TROPICAL KINGBIRD**
Grayer back; longer, thinner bill; unevenly staggered tips of primaries; voice differs.
-  **WESTERN KINGBIRD**
CASSIN’S KINGBIRD
Smaller thinner bills; indistinct, lighter gray ear patches; squared tips of tails; voices differ.



- **POPULATION** Common in lower Rio Grande Valley in summer; uncommon in winter. Casual to the Gulf Coast in fall and winter.
- **CONSERVATION** Neotropical migrant. Increasing in range and in numbers.

Flight Pattern		
		
Slow fluttering flight on shallow wing beats. Sallies to take insects in flight, returns to perch. Hovers down for insects.		
Nest Identification		
Shape 	Location  	

Twigs, leaves, Spanish moss, weeds, and bark strips, with lining of finer materials • on tree limb, 8–25 feet high • built by female • 3–5 pinkish to warm buff eggs, with brown and lavender blotches; ovate to long ovate, subelliptical to long elliptical; 1.0 x 0.7 inches.

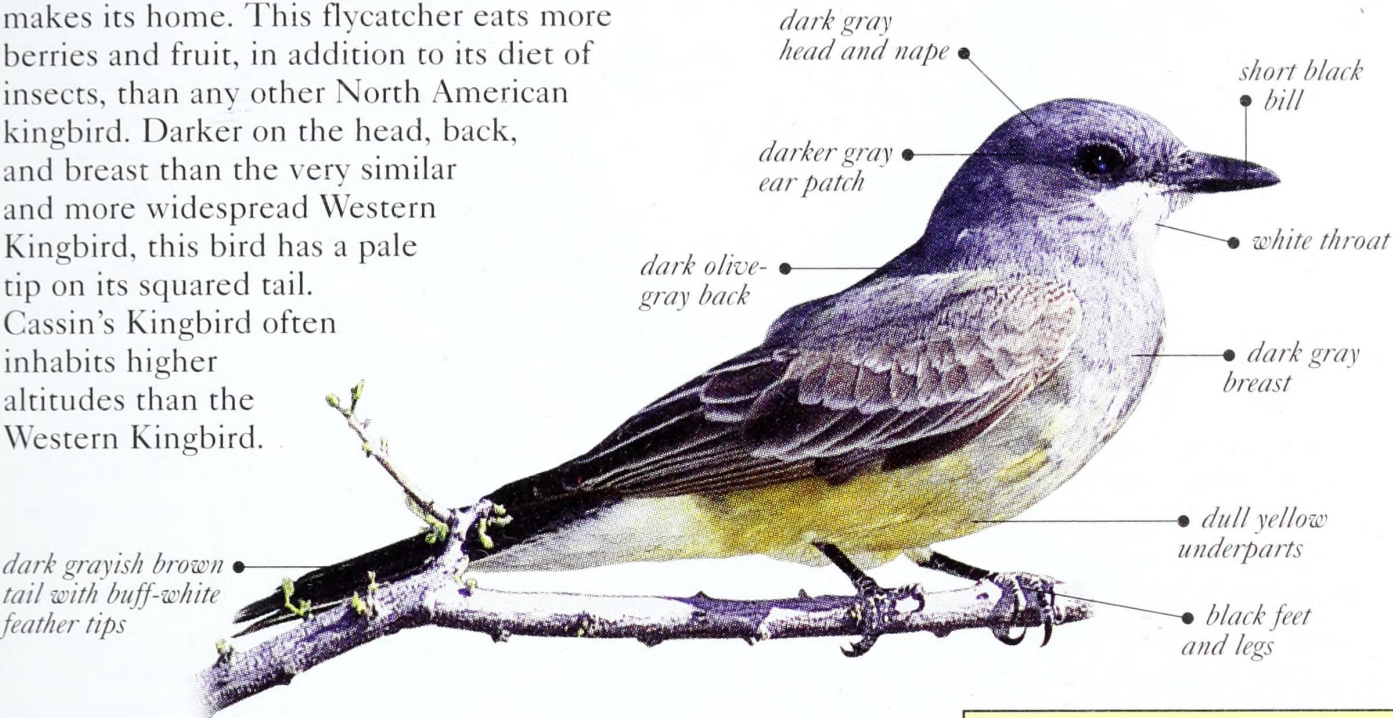
Plumage Sexes similar	Habitat   	Migration Northern birds migrate	Weight 1.6 ounces
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DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Tyrannus vociferans</i>	Length 8–9 inches	Wingspan 15–16.5 inches
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CASSIN’S KINGBIRD

The loud morning song of the male can be heard through the canyons in the foothills covered with oak-piñon and pine-juniper-sycamore woodlands on the lower slopes of the mountains where this bird makes its home. This flycatcher eats more berries and fruit, in addition to its diet of insects, than any other North American kingbird. Darker on the head, back, and breast than the very similar and more widespread Western Kingbird, this bird has a pale tip on its squared tail. Cassin’s Kingbird often inhabits higher altitudes than the Western Kingbird.



- **SONG** Bold burry 2-syllable call of *chi-BEW* with accent on the second syllable. Also sings a noisy high-spirited *ki-dear, ki-dear, ki-dear* in the morning.
- **BEHAVIOR** Solitary or in pairs. Perches at middle to high levels to spot prey, sallies to catch it, then returns to perch to eat. Hawks insects as far as 65 feet away from its perch. Hovers over ground or foliage and picks off insects, insect larvae, berries, and fruit. In courtship male can be seen flying in series of rushed zigzags.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 18–19 days by female. Altricial young stay in nest 14–17 days. Fed by both sexes. 1 brood per year, 2 in southern part of US range.

Flight Pattern



Buoyant fluttering flight with shallow wing beats. Hovers to take insects, berries, and fruit from foliage/ground. Also hawks.

Nest Identification

Shape  Location 

- **POPULATION** Fairly common in variety of habitats. Accidental elsewhere in western, eastern, and southern US in migration and winter.
- **CONSERVATION** Neotropical migrant.

Twigs, weed stems, rootlets, leaves, feathers, and hair • lined with fine plant fibers • on horizontal tree branch 20–50 feet above ground • built by both sexes • 3–5 creamy white eggs with brownish mottling concentrated at larger end; oval to long oval, 0.9 x 0.6 inches.

Similar Birds



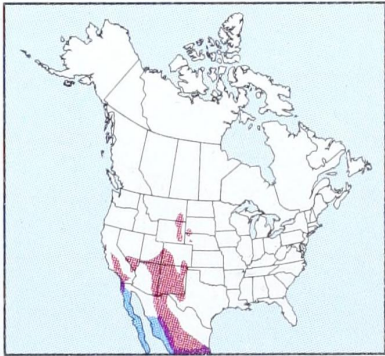
WESTERN KINGBIRD
Lighter gray head and nape; paler less-contrasting throat and chest; white-edged tail; different voice.



TROPICAL KINGBIRD



COUCH’S KINGBIRD
Larger longer bill; darker ear patch; olive breast; dusky brown tail has slightly notched tip and no whitish edging; different voice.



Plumage Sexes similar	Habitat    	Migration Migratory	Weight 1.6 ounces
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DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Tyrannus verticalis</i>	Length 8.75 inches	Wingspan 15–16 inches
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WESTERN KINGBIRD

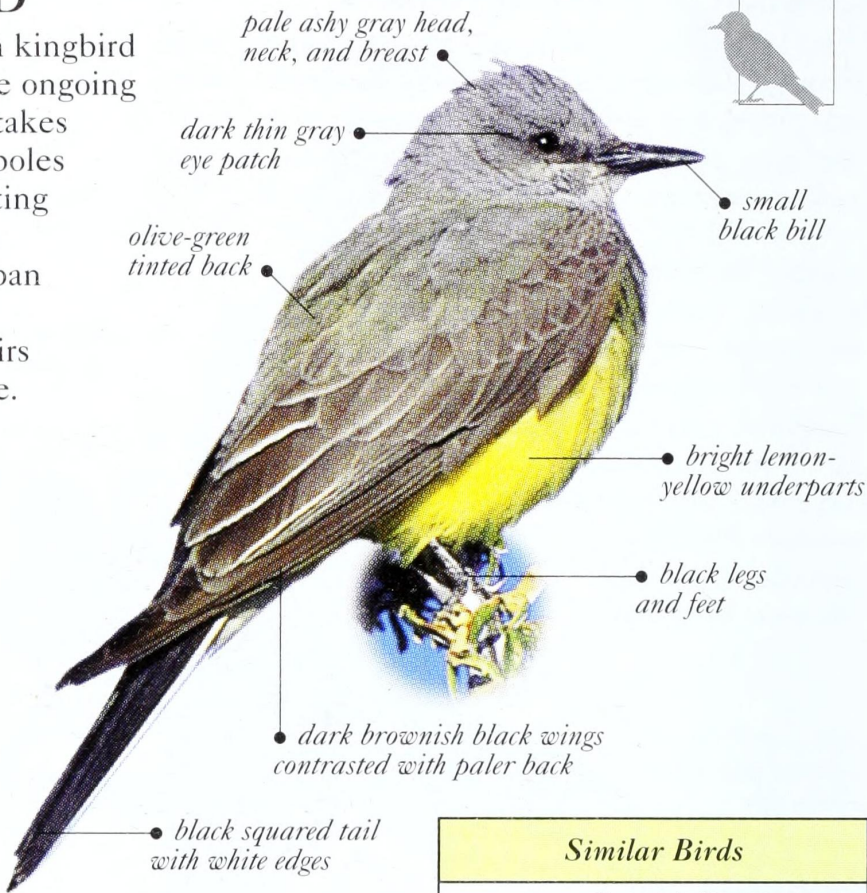
The most common and well-known kingbird in the West has easily adapted to the ongoing development of its habitat. It even takes advantage of it by using telephone poles and other artificial structures as nesting areas and fences and utility wires as hunting perches. Often found in urban areas, it is more gregarious than any other kingbird, with two or more pairs occasionally nesting in the same tree. Aggressive, it also is known for its tenacity for chasing hawks, crows, ravens, and other large birds away from its nesting territory. It can be distinguished from other large flycatchers and kingbirds by the black tail with white edging on each side. A red-orange crown patch usually is concealed.

- **SONG** Call is a rather quiet clipped *bek*. Has an abrasive and bickering chatter of *ker-er-ip*, *ker-er-ip*, *pree pree pr-prrr*.
- **BEHAVIOR** Solitary or in pairs or small groups. Gregarious in winter. Conspicuous. Hunts from open perches at low, middle, and high levels. Sits on perch to spot prey, flies out to catch in midair, and returns to perch to eat. Often hovers above foliage or ground and dips down to pick up food. Feeds on various insects, fruits, and berries. Male performs hectic courtship flight, darting upward into air, fluttering, vibrating feathers, and delivering trilling song.
- **BREEDING** Monogamous. Solitary. Sometimes found in loose semicolonies.
- **NESTING** Incubation 18–19 days by female. Altricial young stay in nest 16–17 days, fed by both sexes. 1–2 broods per year.
- **POPULATION** Common in semiarid open country. Range has expanded during the 20th century as expansion of agriculture

has created more suitable nesting and foraging areas. Some winter in southern Florida. Accidental in fall migration to New England and the Atlantic Coast.

- **CONSERVATION** Neotropical migrant.

Grass, weeds, twigs, and plant fibers, lined with finer materials, including hair, plant down, and cotton • near trunk on horizontal limb or fork of tree, 8–40 feet above ground • sometimes on brace or cross-arm of utility pole, church steeple, or other man-made structure • built by both sexes • 3–7 whitish eggs, heavily blotched with brown, lavender, and black; oval to short oval, 1.0 x 0.6 inches.



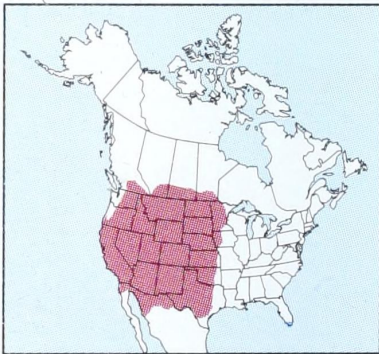
Similar Birds



CASSIN'S KINGBIRD
Darker gray head, breast, and neck; darker olive-brown back; pale buffy white tips on dusky brown tail feathers; whiter throat; voice differs.



TROPICAL AND COUCH'S KINGBIRDS
Larger, longer bills; darker ear patches; darker upperparts; yellow of underparts extends upward to throats; slightly notched tails; voices differ.



Flight Pattern

Buoyant fluttering flight on shallow wing beats. Sallies for insects in flight, returns to perch. Hovers over prey and dips down.

Nest Identification

Shape

Location

Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.4 ounces
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DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE

Species *Tyrannus tyrannus*

Length 8.5 inches

Wingspan 14–15 inches

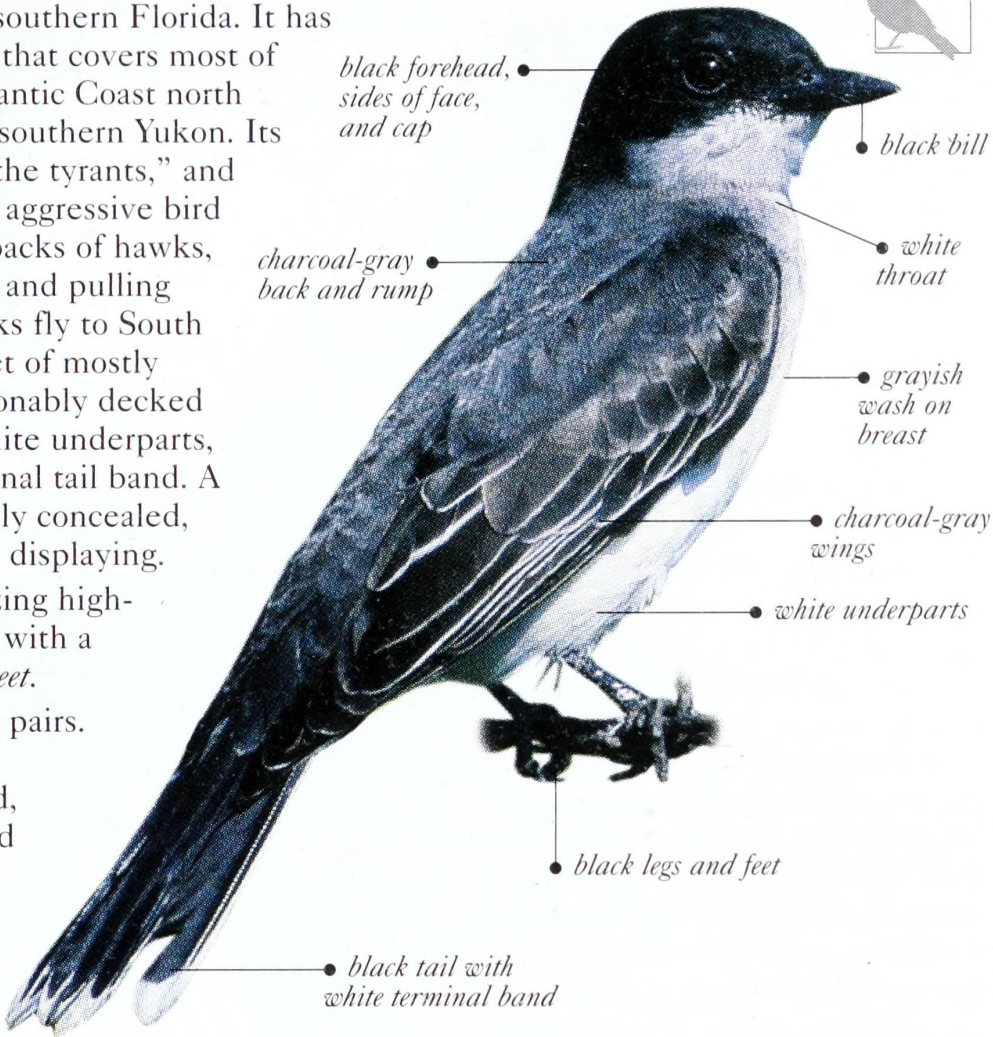
EASTERN KINGBIRD

True to its name, this kingbird is the only one nesting in the East north of southern Florida. It has an extensive breeding range that covers most of North America: from the Atlantic Coast north almost to the treeline in the southern Yukon. Its Latin name means “king of the tyrants,” and when defending its nest this aggressive bird sometimes will land on the backs of hawks, crows, and vultures, pecking and pulling their feathers. In winter flocks fly to South America and survive on a diet of mostly berries. This species is fashionably decked with blackish upperparts, white underparts, and a distinctive white terminal tail band. A red stripe on its crown, usually concealed, is seen only when the bird is displaying.

- **SONG** Utters grating buzzing high-pitched *dzeet* note combined with a rapid *tzi, tzeet, tzi, tzeet, tzi, tzeet*.
- **BEHAVIOR** Solitary or in pairs. Gregarious in migration and winter. Often sits on exposed, low- to mid-level perches and high on trees, shrubs, weed stalks, fences, utility wires, etc. Sits on perch to spot prey, hawks insects in air, and returns to perch to eat them. Also hovers to pick food off leaves or ground. Eats various insects, fruits, and berries. Male performs erratic courtship flights, hovering, circling, and tumbling with tail spread and crown patch revealed.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 16–18 days mostly by female. Altricial young stay in nest approximately 16–18 days. Fed by both sexes. 1 brood per year.
- **POPULATION** Common, widespread, and conspicuous. Has

expanded range and increased numbers with agricultural expansion.

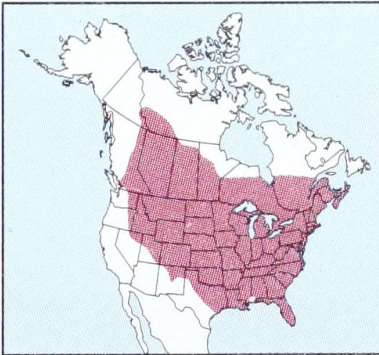
- **CONSERVATION** Neotropical migrant. Common cowbird host, but often damages cowbird eggs.



Similar Birds



GRAY KINGBIRD
Pale gray upperparts; white underparts; black mask through eyes; forked tail lacks white terminal band • limited US range.



Flight Pattern

Fluttering stiff-winged direct flight with shallow wing beats. Sallies to snatch insects in flight, then returns to perch.

Nest Identification

Shape

Location

Weed stalks, twigs, and grass • lined with fine grass, sometimes animal hair • far to midway out on horizontal tree branch or shrub; sometimes on post or stump; 7–60 feet above ground, usually near water • built by female with help from male • 3–5 white to pinkish white eggs with heavy brown, lavender, and gray blotches; long and pointed to very round, but most ovate, 0.9 x 0.7 inches.

Plumage Sexes similar

Habitat

Migration Migratory

Weight 1.5 ounces

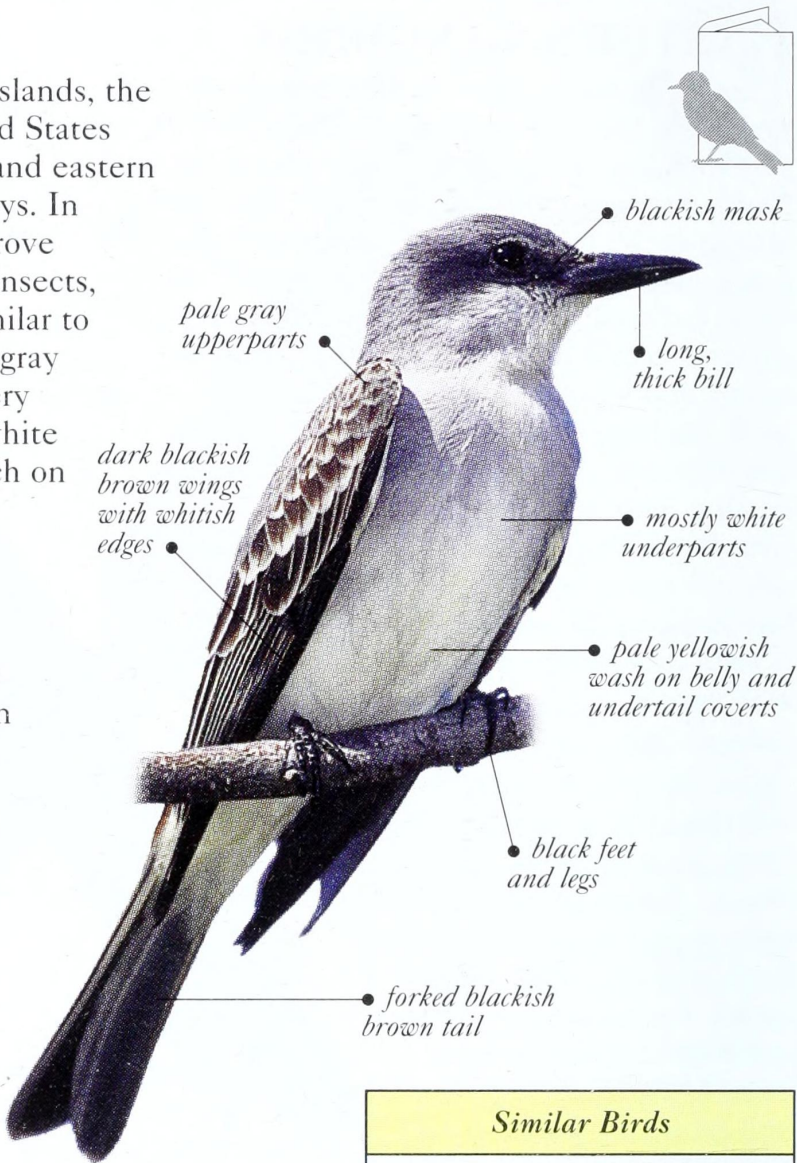
DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Tyrannus dominicensis</i>	Length 9 inches	Wingspan 14.5–16 inches
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GRAY KINGBIRD

A common inhabitant of the Caribbean islands, the Gray Kingbird usually nests in the United States along the coastlines of Georgia, Florida, and eastern Alabama. It is common in the Florida Keys. In Florida this bird generally nests in mangrove swamps, eating fruit from tropical trees, insects, and an occasional lizard. Superficially similar to the Eastern Kingbird, this bird has paler gray upperparts, a noticeable black mask, a very large bill, and a forked tail without any white on the tips of the tail feathers. A red patch on the crown is seldom visible.

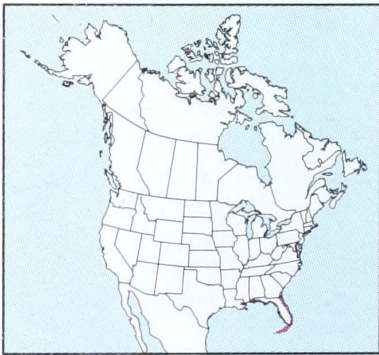
- **SONG** Call is insectlike *peCHEER-ry*, with accent on the second syllable. Also gives harsh, trill calls of *trii-ill-ill-it*.
- **BEHAVIOR** Solitary or in pairs; forms small flocks in winter. Conspicuous; often seen perched on utility wires. Perches at mid to high levels and sallies to catch flying insects. Often catches insects low over water's surface. Sometimes eats various worms or caterpillars from ground or nearby foliage. May hover briefly to pick up insects, fruits, berries, or lizards. Often found in towns. Aggressively defensive around nest and nesting territory, chasing and attacking larger birds, cats, dogs, and sometimes humans.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Breeding biology poorly known. Incubation estimated at 16–18 days by female. Altricial young stay in nest an estimated 16–20 days. Fed by both sexes. 1–2 broods per year.
- **POPULATION** Increasing in interior of Florida. Locally common in that state and Caribbean. Casually to rarely wanders to Maritimes in fall and west along Gulf Coast to Texas. Accidental elsewhere inland.



Similar Birds



EASTERN KINGBIRD
Smaller bill; rounded blackish tail with white terminal band; blackish head without mask; white underparts with grayish wash across breast; shallow, stiff-winged flight; different voice.



Flight Pattern

Buoyant fluttering direct flight with shallow wing beats. Sallies to hawk insects, returning to perch. Sometimes hovers over food, then dips to pick it up.

Nest Identification

Shape Location

Lined with fine grass, twigs, and roots • flimsy, often showing eggs and young through bottom • among coastal mangrove branches or other trees on horizontal branch 4–50 feet above ground • built by both sexes • 3–5 pale pink to buff eggs with brown, lavender, and gray blotches; oval to long oval, 1 x 0.7 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.5 ounces
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DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Tyrannus caudifasciatus</i>	Length 9 inches	Wingspan 15 inches
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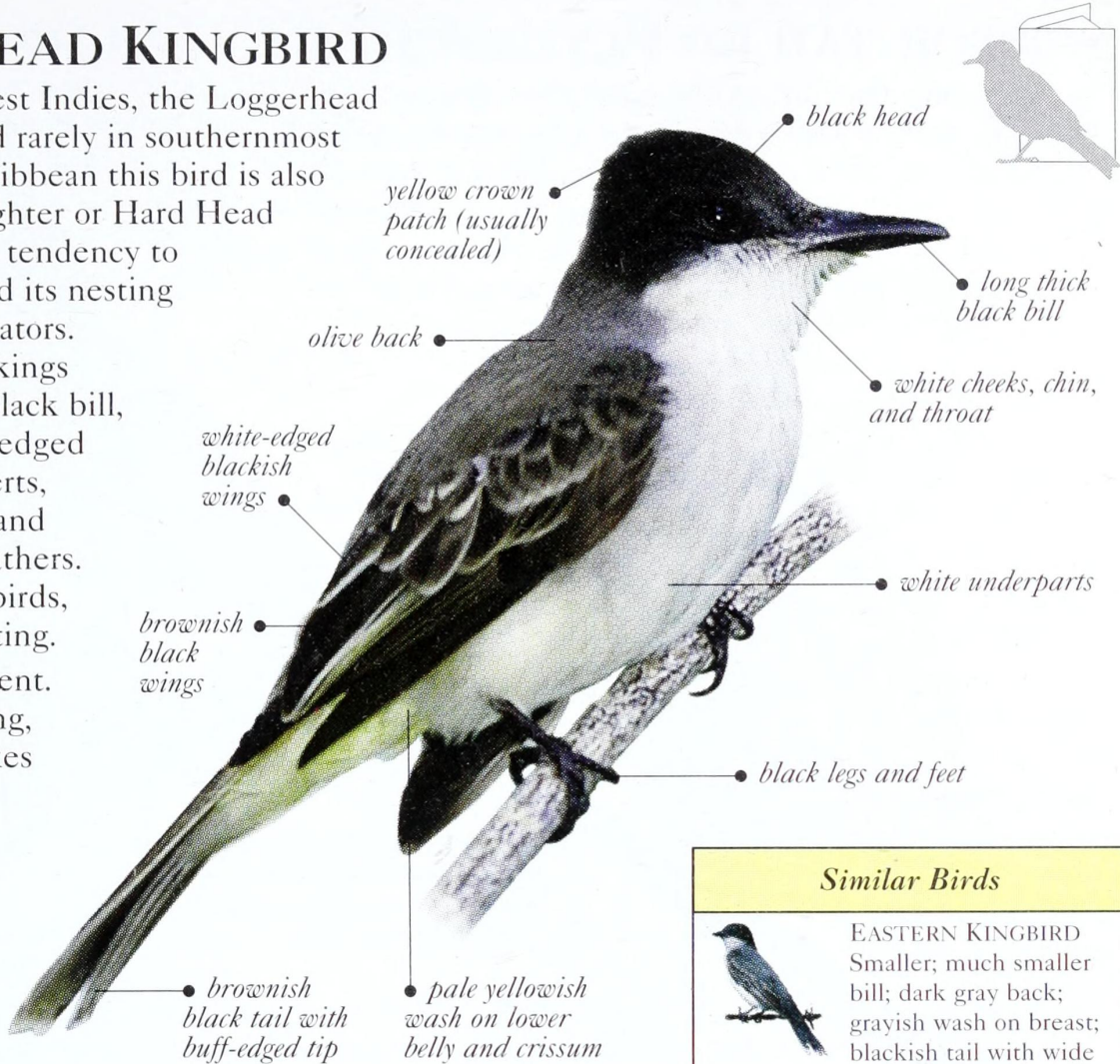
LOGGERHEAD KINGBIRD

A native of the West Indies, the Loggerhead Kingbird is spotted rarely in southernmost Florida. In the Caribbean this bird is also called the Tom Fighter or Hard Head Bird because of its tendency to aggressively defend its nesting territory from predators. Characteristic markings include the large black bill, black head, white-edged blackish wing coverts, white underparts, and buff-tipped tail feathers. Unlike other kingbirds, its flight is undulating.

• **SONG** Often silent. Call is loud churring, rolling *teerrrp*. Makes series of similar notes during courtship or when agitated, *teerrr*, *teerrr*, *teerrr*. Song is seldom heard on breeding grounds.

• **BEHAVIOR** Solitary or in pairs. Frequents wooded habitats where it is easily overlooked in the crowns of trees or hunts from middle to low-level perches. Often sits quietly, sallying to catch flying insects and returning to perch. Sometimes eats berries and lizards.

- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Breeding poorly known. Incubation estimated at 15–16 days by female. Altricial young estimated to fledge nest in 18–20 days. Fed by both sexes. 1–2 broods per year.
- **POPULATION** Casual in southern Florida. Fairly common in island range in the Caribbean.



Similar Birds

EASTERN KINGBIRD
Smaller; much smaller bill; dark gray back; grayish wash on breast; blackish tail with wide white terminal band • shallow, stiff-winged flight; does not undulate.

GRAY KINGBIRD
Pale grayish upperparts and head; blackish mask through eyes; notched tail lacks pale tips • fluttering, buoyant flight; does not undulate • different voice.

Flight Pattern

Alternates several rapid shallow wing beats with short periods of wings pulled to sides. Sallies from perch to snatch flying insects.

Nest Identification

Shape

Location

• **CONSERVATION** Vulnerable to habitat loss due to deforestation of hardwoods and pine forests (where it often retreats in late spring).



Twigs, grasses, stems, bark, and plant fibers • lined with plant down, moss, horsehair, and other fine materials • on horizontal branch 8–25 feet above ground • built by both sexes • 3–5 creamy buff or pinkish eggs with brown and purple blotches; oval to long oval, 1 x 0.7 inches.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 1.5 ounces
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DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Tyrannus forficatus</i>	Length 11.5–15 inches	Wingspan 14.25–15.5 inches
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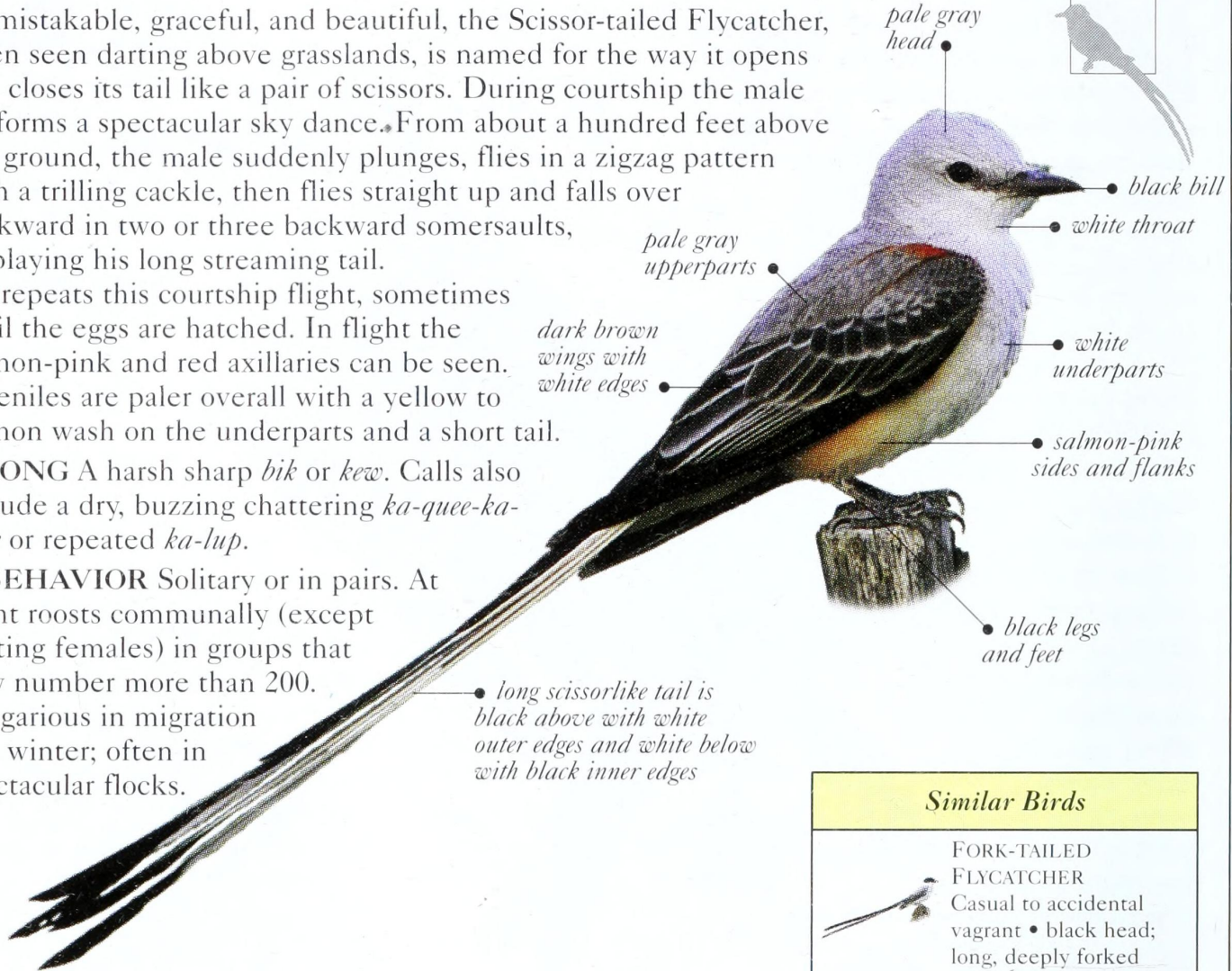
SCISSOR-TAILED FLYCATCHER

Unmistakable, graceful, and beautiful, the Scissor-tailed Flycatcher, often seen darting above grasslands, is named for the way it opens and closes its tail like a pair of scissors. During courtship the male performs a spectacular sky dance. From about a hundred feet above the ground, the male suddenly plunges, flies in a zigzag pattern with a trilling cackle, then flies straight up and falls over backward in two or three backward somersaults, displaying his long streaming tail.

He repeats this courtship flight, sometimes until the eggs are hatched. In flight the salmon-pink and red axillaries can be seen. Juveniles are paler overall with a yellow to salmon wash on the underparts and a short tail.

• **SONG** A harsh sharp *bik* or *kew*. Calls also include a dry, buzzing chattering *ka-quee-ka-quee* or repeated *ka-lup*.

• **BEHAVIOR** Solitary or in pairs. At night roosts communally (except nesting females) in groups that may number more than 200. Gregarious in migration and winter; often in spectacular flocks.



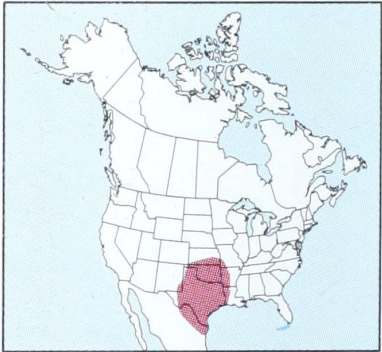
Perches on branches, utility wires, and fences; often sits for hours to spot bees, wasps, and other flying insects, then catches them in midair. Often hunts from low perches, searching for grasshoppers and crickets on the ground. Can perform very acrobatic flight.

- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 14–17 days by female. Altricial young stay in nest 14–16 days. Fed by both sexes. 1 brood per year.
- **POPULATION** Common in open country with scattered trees, prairies, scrublands, farmlands. Accidental to casual across much of North America. Small wintering population in central to south Florida.

• **CONSERVATION** Neotropical migrant. Rare host to cowbirds.

Similar Birds

- FORK-TAILED FLYCATCHER**
Casual to accidental vagrant • black head; long, deeply forked black tail; white underparts and wing linings.
- WESTERN KINGBIRD**
Similar to juvenile with short tail but has olive-green-tinted back; bright lemon-yellow underparts; squared tail.



Flight Pattern		
Light buoyant direct flight with shallow wing beats. Sallies to catch insects in flight, returning to perch. Hovers briefly over prey before dipping to pick it up.		

Nest Identification	
Shape	Location

Lined with twigs, weeds, rootlets, grass, and hair • on horizontal limb or fork in tree or shrub or utility pole, post, building, or other man-made structure 7–40 feet above ground • built by female • 3–6 whitish eggs with reddish, brown, olive, and gray blotches; ovate to rounded ovate, 0.9 x 0.6 inches.

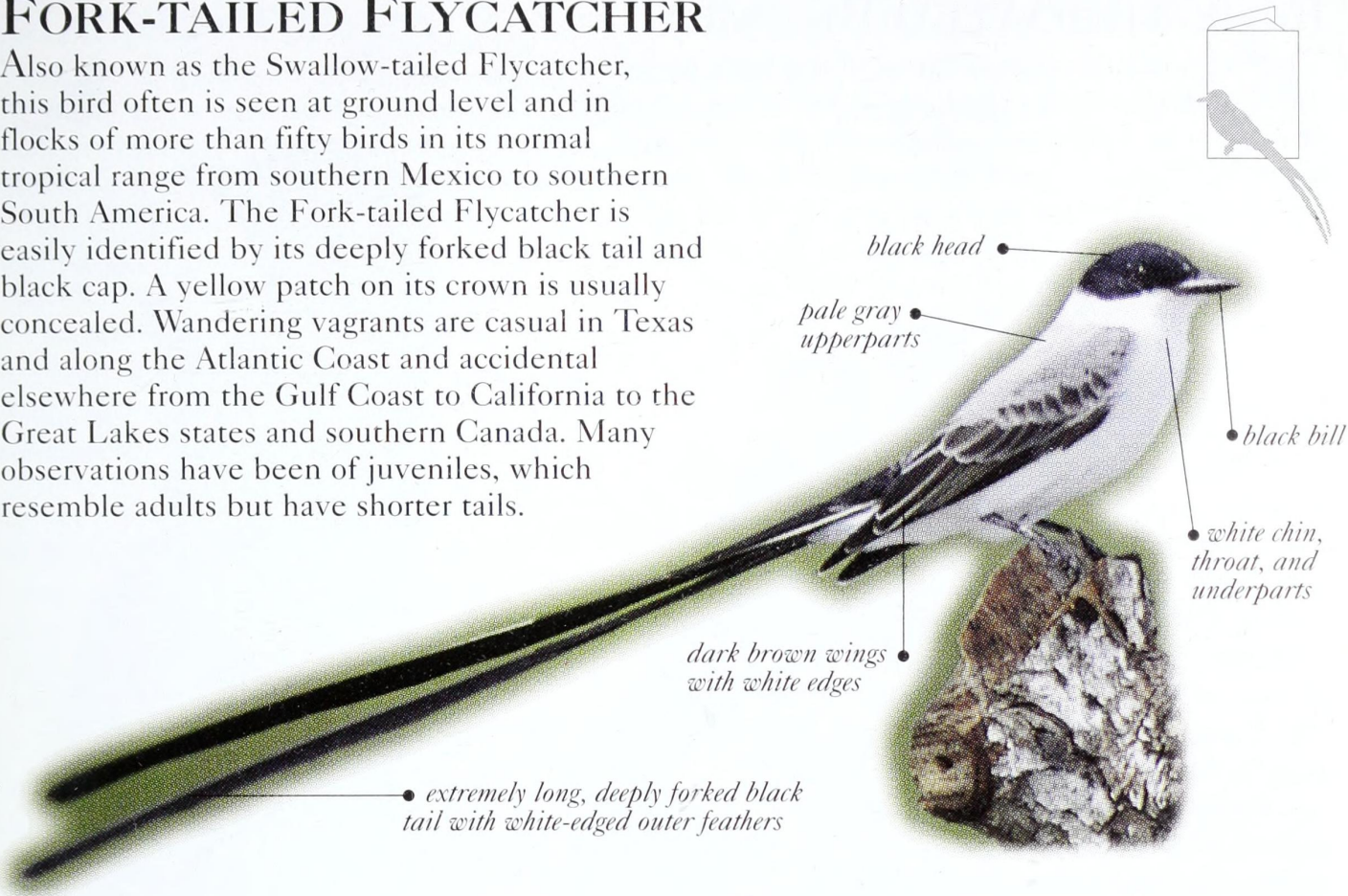
Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.5 ounces
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DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Tyrannus savana</i>	Length 14.5 inches	Wingspan 15 inches
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FORK-TAILED FLYCATCHER

Also known as the Swallow-tailed Flycatcher, this bird often is seen at ground level and in flocks of more than fifty birds in its normal tropical range from southern Mexico to southern South America. The Fork-tailed Flycatcher is easily identified by its deeply forked black tail and black cap. A yellow patch on its crown is usually concealed. Wandering vagrants are casual in Texas and along the Atlantic Coast and accidental elsewhere from the Gulf Coast to California to the Great Lakes states and southern Canada. Many observations have been of juveniles, which resemble adults but have shorter tails.

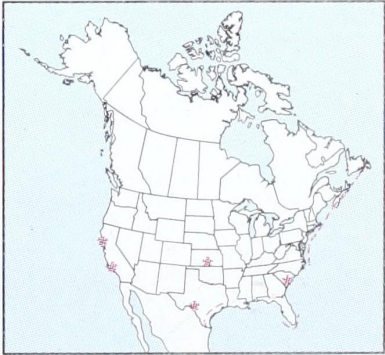


- **SONG** Call is abrasive repeated liquid *sik* or *plik*. Also utters lower, bleating *ek-ek-ek-ek-ek*, etc. During courtship flights male makes rapid, clicking, sharp dry rattle with wings.
- **BEHAVIOR** Solitary or in pairs. At night roosts communally (except nesting females) with up to several hundred birds. Gregarious during nonbreeding season. Often perches low within 3 feet of ground in savannas and other open, grassy country. Sallies up and hawks insects in air or drops to pick them off ground. Plucks berries and fruits in flight and eats them. Males perform a slow butterfly-like courtship flight.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Breeding biology poorly known. Incubation estimated 14–17 days by female. Altricial young estimated to fly at 14–17 days. Fed by both sexes. 1–2 broods per year.
- **POPULATION** Casual to accidental in North America.

Similar Birds



SCISSOR-TAILED FLYCATCHER
Pale pearly gray upperparts and head; salmon-pink sides, flanks, and underwing linings; red axillars.



Flight Pattern



Swift flight with shallow wing beats and long rippling tail streamers. Sallies to snatch insects in flight, then returns to perch.

Nest Identification

Shape 

Location 

Grasses, plant fibers, leaves, and bark shreds • lined with seed down, plant down, and hair • on horizontal branch of tree or shrub 3–35 feet above ground • built by female • 2–3 glossy white eggs wreathed with chocolate and lilac spots; oval to long oval, 0.9 x 0.6 inches.

Plumage Sexes similar	Habitat 	Migration Migratory	Weight 1.0 ounce
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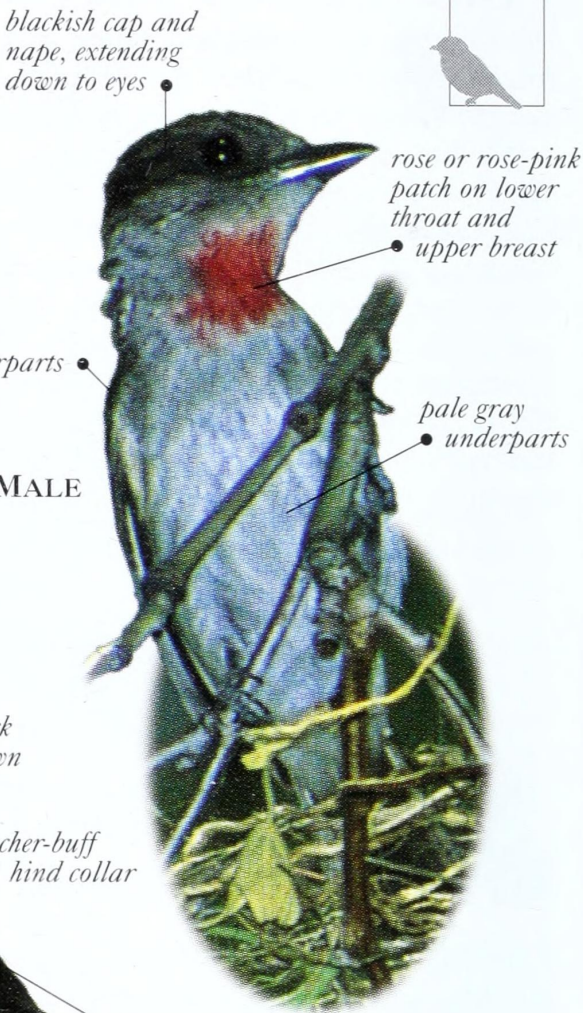
DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Pachyramphus aglaiae</i>	Length 6.5–7.25 inches	Wingspan 11.5 inches
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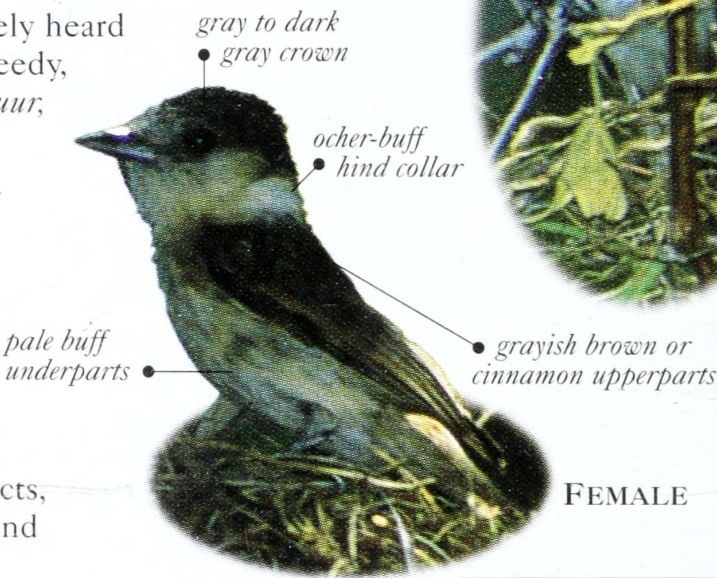
ROSE-THROATED BECARD

The brilliant rose-colored throat of the male helps distinguish this stocky big-headed flycatcher. Often nesting on or very near the same site year after year, it may take weeks to build its huge globular nest, which is 1–2.5 feet in size and hangs from the tip of a drooping tree branch high above the ground or over water. A native of Mexico and Central America, its range includes parts of southeast Arizona and southeast Texas. The race occurring in Texas is darker overall; males have blackish upperparts and dark gray underparts, and the rose patch on the throat is much reduced or absent. Texas females have a sooty black crown and deeper buff to tawny cinnamon upperparts. Juveniles are similar to adult females.

- **SONG** Call is a sad downslurred whistled *tseooou*, often preceded by a reedy chatter. Alarm note is a soft *peek*. Has a rarely heard song at dawn, which is plaintive, reedy, and long-continued, *wheeuu-whyeeeuur*, *wheeuu-whyeeeuur*.
- **BEHAVIOR** Solitary or in pairs. After nesting season may join mixed-species foraging flocks. Sits quietly, almost motionless, hidden in foliage on branch at middle levels in clearing, opening, or forest edge, watching for insects. Easily overlooked. Catches insects in flight. Eats insects, their larvae, and some wild fruits and berries. Also frequents canopy.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Breeding biology poorly known. Estimated incubation 15–17 days by female. Young altricial; brooded by female; stay in nest 19–21 days, fed by both sexes. Has 1 brood



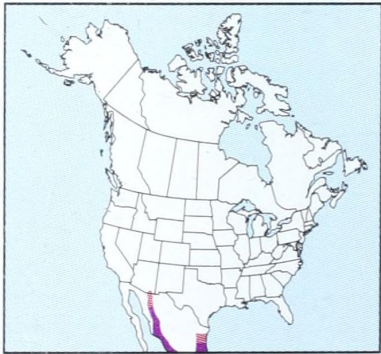
MALE



FEMALE

Similar Birds

None in North American range.



Flight Pattern

Weak flights, often of short duration, with rapid shallow wing beats. Sallies forth to take insects in flight or off foliage.

Nest Identification

Shape

Location

- **POPULATION** Casual to rare in southeastern Arizona and in the lower Rio Grande Valley area of Texas.
- **CONSERVATION** Neotropical migrant. Rare host to cowbird parasitism.

Lichen, bark, vine, pine needles, spider web, and feathers, lined with finer materials • hangs from branch of tree, 13–70 feet above ground • built by both sexes, but female does most • 2–6 white or creamy white eggs, with brown blotches; short subelliptical, 0.9 x 0.7 inches.

Plumage Sexes differ	Habitat	Migration US birds migrate	Weight 1.1 ounces
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DATE _____ TIME _____ LOCATION _____

Family TYRANNIDAE	Species <i>Tityra semifasciata</i>	Length 8.5–9.5 inches	Wingspan 15–16 inches
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MASKED TITYRA

A native of Mexico with a range extending south to Brazil, this bird has been found once in southeastern Texas. When observed in its usual range it often is seen perched or foraging high in the trees with several other tityras and other species of birds. The fruit-eating tityra is immediately conspicuous and distinctive with its pale silvery gray and white or brownish gray and white plumage and its pinkish red bill, bare lores, bare eye ring, and nasal grunting *rreek-rack* vocalizations. Juveniles resemble females but have a browner wash on paler upperparts and a narrower white tip to the tail.

• **SONG** A soft buzzy froglike *rreek*, *rreek* or *rreek*, *rrack*, with second note higher. Sometimes a longer series with other dry insectlike notes is inserted.

• **BEHAVIOR** Solitary or in pairs. Sometimes in small groups. Often forages with other species from middle levels to canopy. Perches conspicuously on bare branches to hawk insects, sing, or preen. Eats various insects and fruits, but fruits seem to make up bulk of diet. Hover-gleans fruit from branches and foliage and hops along branches to chase insects and the occasional small lizard.

• **BREEDING** Monogamous. Solitary nester or small loose colonies.

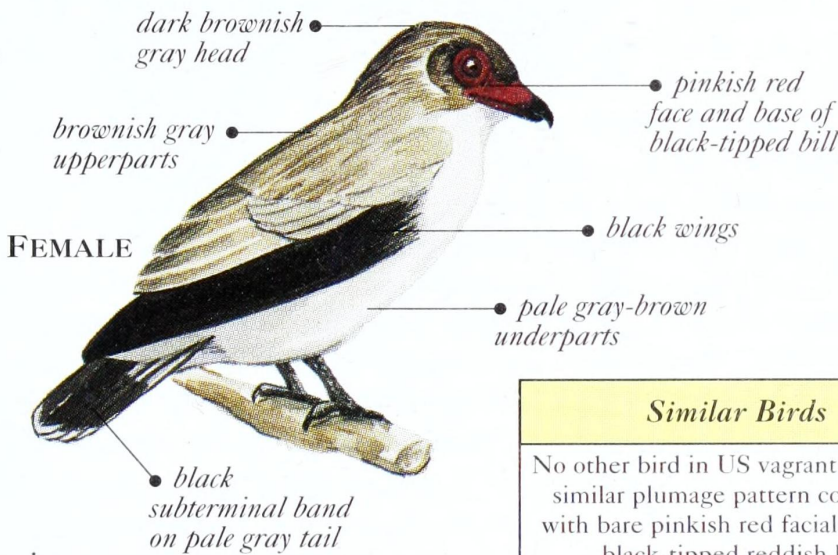
• **NESTING** Estimated incubation 14–16 days by female. Female covers eggs with leaves and

blossoms when absent from nest. Young altricial; brooded by female; stay in nest about 14 days, fed by both sexes. 2 broods per year.

• **POPULATION** Accidental in North America in lower Rio Grande Valley of Texas.



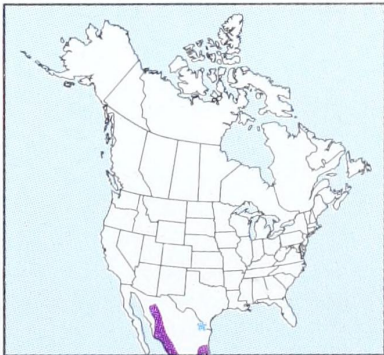
MALE



FEMALE

Similar Birds

No other bird in US vagrant range has similar plumage pattern combined with bare pinkish red facial skin and black-tipped reddish bill.



Flight Pattern

Swift bounding flight with rapid wing beats alternated with wings pulled briefly to sides; sallies to take insects in flight.

Nest Identification

Shape	Location
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No nest materials • cavity partially filled with leaf litter fragments, twigs, and flowers • in hollow of tree, 11–100 feet above ground • built by female • 2–3 dark buff eggs, heavily marbled with brown; oval to short oval, 1.0 x 0.8 inches.

Plumage Sexes differ	Habitat	Migration Nonmigratory	Weight 2.8 ounces
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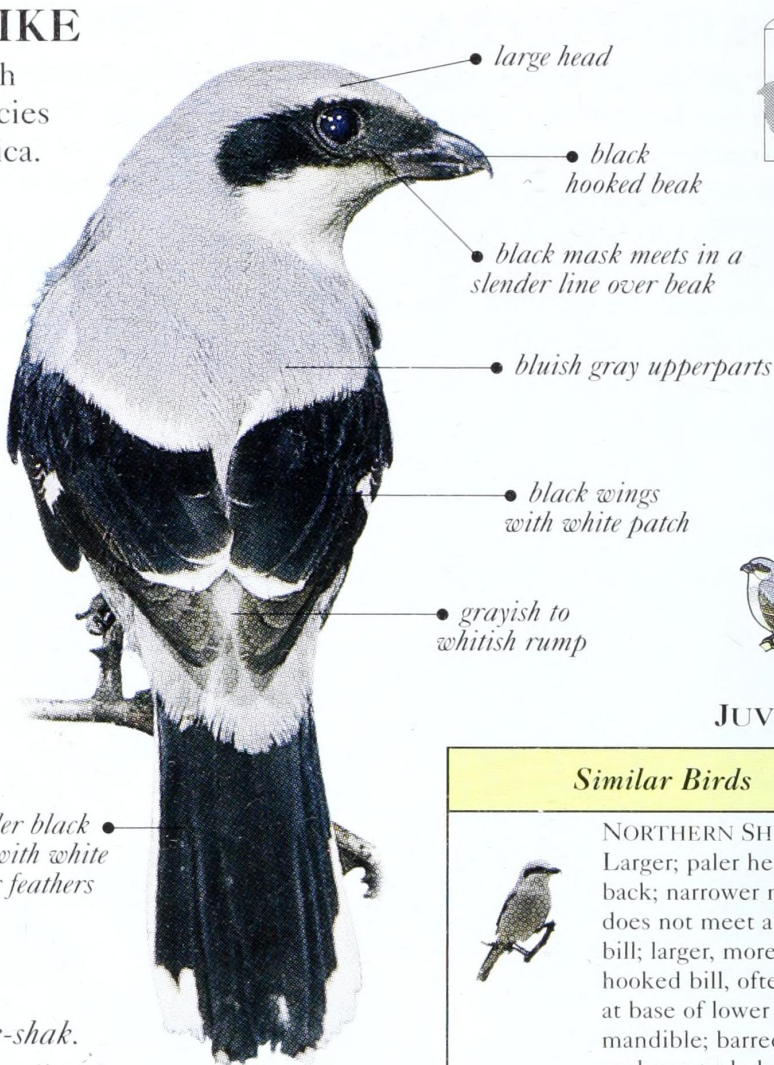
DATE _____ TIME _____ LOCATION _____

Family Laniidae	Species <i>Lanius ludovicianus</i>	Length 9 inches	Wingspan 12.5–13 inches
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LOGGERHEAD SHRIKE

This large-headed bird with whitish underparts is one of two shrike species that nest and breed in North America. Known as the “Butcher Bird” across its range, this adept hunter usually perches in the open to watch for prey. It has the unusual behavior of caching the bodies of its prey by suspending them impaled on a plant spine or the barbed wire of a fence. The caches may serve as larder for future use, to soften the food for easier rendering, or to passively advertise the presence of the territory and its owner. Juveniles have brownish upperparts and more distinctly barred underparts.

- **SONG** Variety of squeaking notes and low warbles, delivered in slow deliberate phrases, often repeated, *queedle, queedle*. Call is a grating *shak-shak*.
- **BEHAVIOR** Solitary. Pairs in breeding season. Often sits immobile, hawklike, watching for prey for long periods. Flies down to catch prey with bill or sharp claws; also catches insects in flight. Eats small rodents, birds, reptiles, amphibians, and insects. Pair defends territory in breeding season but defend separate territories in winter.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 16–17 days by female. Young altricial; brooded by female; stay in nest 17–21 days, fed by both sexes. 2 broods per year (occasionally 3 in the South).
- **POPULATION** Fairly common in habitats with open fields and scattered trees. Now rare over much of central part of range.



JUVENILE

Similar Birds



NORTHERN SHRIKE
Larger; paler head and back; narrower mask does not meet above bill; larger, more deeply hooked bill, often pale at base of lower mandible; barred underparts; bobs tail
• juvenile much browner.



NORTHERN MOCKINGBIRD
Longer thinner straighter bill; lighter wings with larger white patches; paler tail with more extensive white in outer feathers; head proportionally smaller.

Flight Pattern



Rapid flight on rapidly beating wings with brief periods of wings pulled to sides. Often flies low across the ground.

Nest Identification

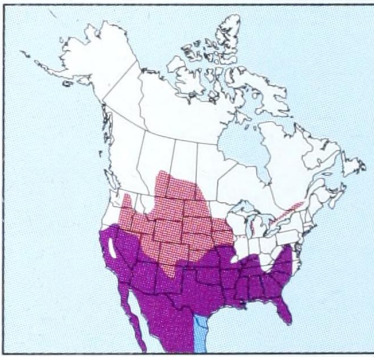
Shape



Location



Twigs lined with grasses, string, feathers, and hair • in bush or tree, 8–15 feet above ground (but as high as 50 feet) • built by female or sometimes both sexes • 4–7 white to grayish buff eggs, marked with grays, browns, or blacks, often concentrated near large end; oval to long oval, 1.0 x 0.74 inches.



Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.7 ounces
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DATE _____ TIME _____ LOCATION _____

Family LANIIDAE

Species *Lanius excubitor*

Length 9–10 inches

Wingspan 13.5–16.5 inches

NORTHERN SHRIKE

Perched high in the treetops, this robin-sized bird acts as a sentry, often uttering loud warning calls to other birds as it scans the landscape for prey.

The larger and more northerly distributed of the two shrikes that nest and breed in North America, it is aggressive and will attack Blue Jays or other birds larger than itself, especially in defending its caches.

Irruptive movements south in the winter seem to be correlated with the availability of prey species, especially small mammals. In flight the white wing patches, white rump, and white outer tail feathers contrast against the black wings and tail. The female is similar to the male but duller and sometimes more brown. Young birds are browner than adults and have heavier barring on their underparts.

• **SONG** Sings a low disjointed jerky thrasherlike song of clear notes and phrases, some musical, interspersed with grating shrieks. Call is a *shak-shak*. Also imitates calls of other birds.

• **BEHAVIOR** Solitary. Pairs in breeding season. Hunts in daytime. Perches in prominent lookout to spot prey; catches prey with beak, stuns it, and often impales it on sharp thorns or branches until ready to eat. Caches food for later use in this manner. Feeds on small mammals, mostly rodents, small birds, and insects. Aggressive in pursuit of prey. White in tail and white wing patches flash in flight.

• **BREEDING** Monogamous. Solitary nester.

• **NESTING** Incubation 15–16 days by female. Young altricial; brooded by female; stay in nest 20 days, fed by both sexes. First

flight at about 20 days, but fed by both sexes for 10 more days or longer. 1 brood per year.

• **POPULATION** Uncommon in taiga (boreal forest) in clearings, open areas, and edges.

• **FEEDERS** Raw hamburger, suet. Also hunts feeder visitors.

Sticks lined with feathers, hair, and fine materials • in tree or shrub, 12–20 feet above ground • built by both sexes • 4–9 grayish or greenish white eggs, heavily blotched with olive, brown, and lavender; oval to long oval, 1.1 x 0.8 inches.



FIRST WINTER

JUVENILE

Similar Birds



LOGGERHEAD SHRIKE
Smaller; darker head and back; gray to white rump; wider mask extending above eye and across bill; smaller and less strongly hooked black bill; gray underparts with very faint or no barring
• juveniles are gray-brown and lightly barred.



Flight Pattern



Swift undulating flight on shallow rapid wing beats, often low to the ground.

Nest Identification

Shape

Location

Plumage Sexes similar

Habitat

Migration Migratory

Weight 2.3 ounces

DATE _____ TIME _____ LOCATION _____

Family VIREONIDAE	Species <i>Vireo griseus</i>	Length 5 inches	Wingspan 8 inches
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WHITE-EYED VIREO

Preferring to hide in the dense foliage of brushy thickets, this bird is known for uttering an explosive jumble of phonetic sounds and phrases, typically beginning and ending the song with a sharp *chick!* Sometimes it will mimic the songs and calls of other birds by incorporating their vocalizations into the jumbled middle portion of its rather unvireo-like song. Its white iris can be seen only at close range. Juveniles are paler overall with gray to brown irises.

• **SONG** Abrasive *chik*, *ticha wheeyo chik*. Mnemonics for the variable song differ from region to region, but the standard generic one is *quick-with-the-beer-check!* Individuals vary their songs and often omit either the introductory or the ending *chick*. Call is a wrenlike mewing note, a rasping rattle, and a sharp *tick!*

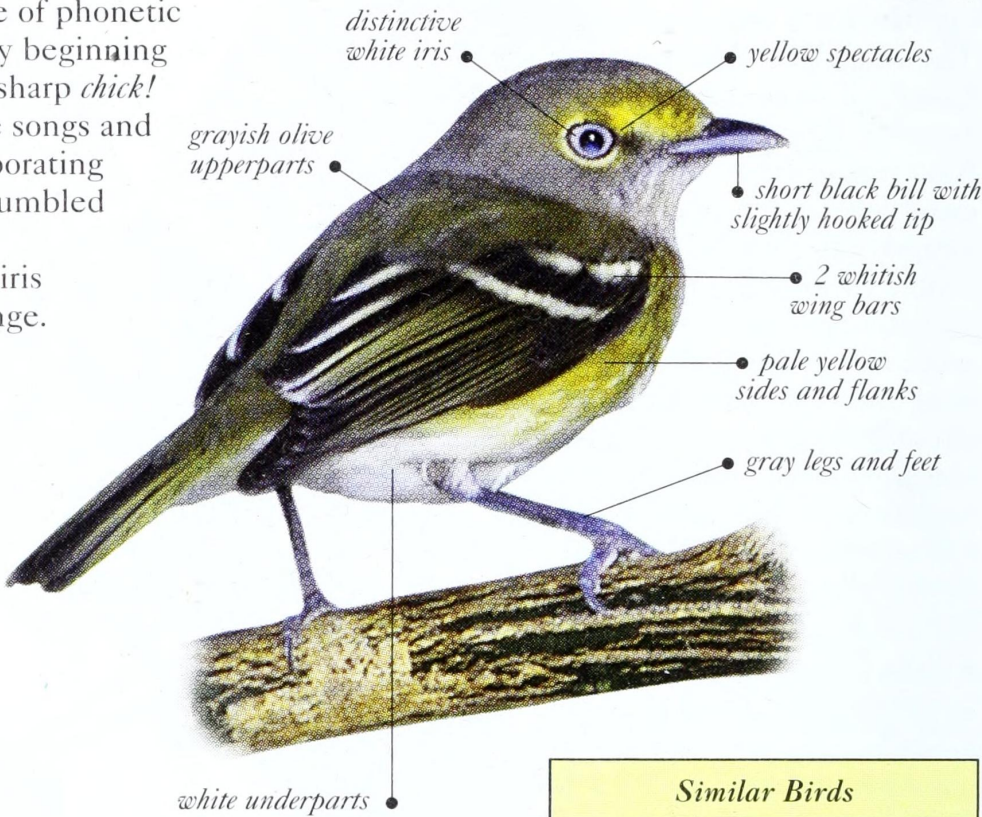
• **BEHAVIOR** Solitary or in pairs. May join mixed foraging flocks in fall migration. Usually remains hidden close to the ground in blackberry thickets, thick brushy tangles, thick forest undergrowth, or the forest edge. Perches higher to sing. Often sings in winter. Gleans food from stems, branches, and foliage. Eats insects, snails, spiders, fruits, berries, and small lizards.

• **BREEDING** Monogamous. Solitary nester. Courting male postures before female with whining calls of *yip*, *yip*, *yah* while puffing up his feathers and spreading his tail.

• **NESTING** Incubation 12–16 days by both sexes. Altricial young stay in nest 10–12 days. Fed by both sexes. 1 brood per year, 2 in the South.

• **POPULATION** Fairly common to common. Casual vagrant to the West.

• **CONSERVATION** Neotropical migrant. Parasitized frequently by cowbirds.



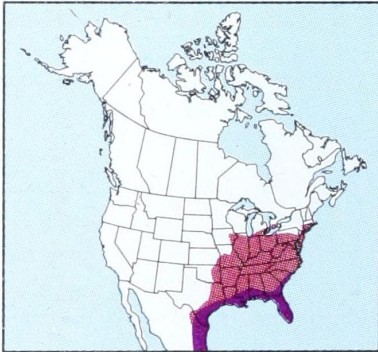
Similar Birds



BELL'S VIREO
Smaller; greenish back; yellowish underparts; grayish face, crown, and nape; faint white spectacles; one bold and one faint white wingbar; dark brown eye.



YELLOW-THROATED VIREO
Yellow chin, throat, and breast; gray rump; bright yellow spectacles; lacks white iris; different song.



Flight Pattern	
Relatively rapid direct flight on short, rounded wings.	

Nest Identification	
Shape	Location

Twigs, rootlets, bark strips, coarse grass, and leaves; bound with silk • lined with fine grass and fibers • hangs between fork in twigs at the end of a branch of shrub or small tree 1–8 feet above ground • built by both sexes • 3–5 white eggs spotted with brown and black; oval, 0.74 x 0.55 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.4 ounce
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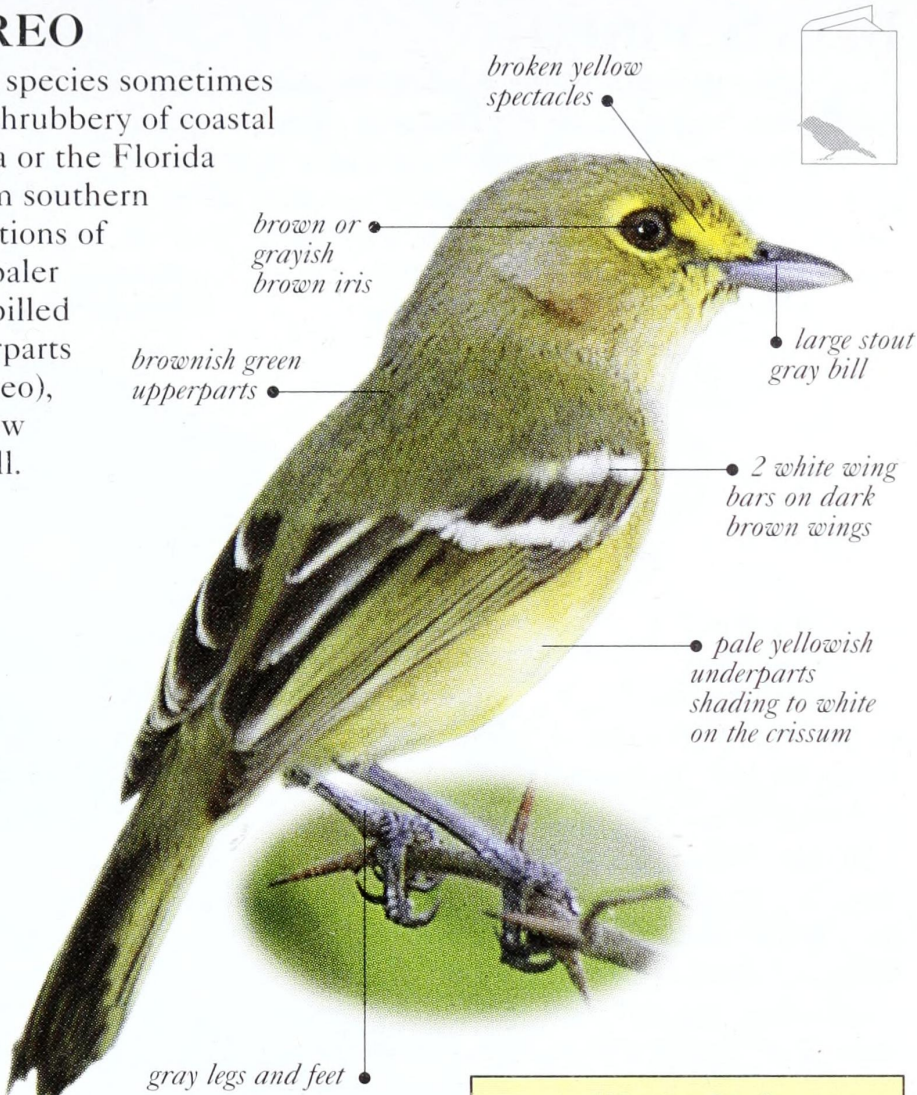
DATE _____ TIME _____ LOCATION _____

Family VIREONIDAE	Species <i>Vireo crassirostris</i>	Length 5.5 inches	Wingspan 8.5 inches
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THICK-BILLED VIREO

Vagrants of this Caribbean native species sometimes are spotted inhabiting the dense shrubbery of coastal mangroves in southeastern Florida or the Florida Keys. However, many reports from southern Florida probably are misidentifications of juvenile White-eyed Vireos with paler coloration and dark irises. Thick-billed Vireos have brownish green upperparts (not gray as in the White-eyed Vireo), including their nape, broken yellow spectacles, and a stouter grayer bill. More often heard than seen, this bird is easily overlooked because it frequents thickets and dense undergrowth where it moves deliberately, often silently.

- **SONG** Loud, constant singer. Sings 10–12 variations of song, with each one similar to the next; energetic *chip chip WEEEoo chip*. Sings as it moves through the vegetation. Call is rasping *waaa, waaa, waaa*.
- **BEHAVIOR** Solitary or in pairs. Forages low, mostly 2–12 feet high, in shrubbery, thickets, dense undergrowth, and trees for food. Eats insects, spiders, small fruits, and berries. Tame; readily comes to squeaking or pishing sounds, making it an easy species to call for viewing.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 12–14 days by both sexes. Altricial young fledge nest at 10–12 days. Fed by both. 1 brood per year.
- **POPULATION** Accidental or casual in southeastern Florida and the Florida Keys. Common in Caribbean range.



Similar Birds



WHITE-EYED VIREO
Smaller; smaller black bill; white iris; gray-olive upperparts; gray head and nape; white underparts with yellow wash on sides and flanks; complete yellow spectacles • juvenile has gray or brown iris.

Flight Pattern



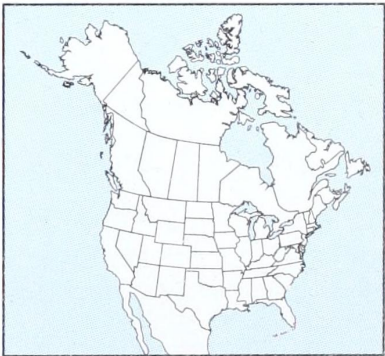
Relatively rapid direct flight on short rounded wings.

Nest Identification

Shape 

Location 

• **CONSERVATION** Primary habitat expanding with human settlement and the resulting deforestation, agricultural expansion, and ornamental plantings.



Grasses and covered outside with moss, pieces of bark, and sometimes bits of paper or rag • lined with soft plant fibers, down, and grasses • hangs in fork near end of branch • built by both sexes • 2–3 white or pale pink eggs thinly marked with blackish or reddish spots; oval, 0.8 x 0.6 inches.

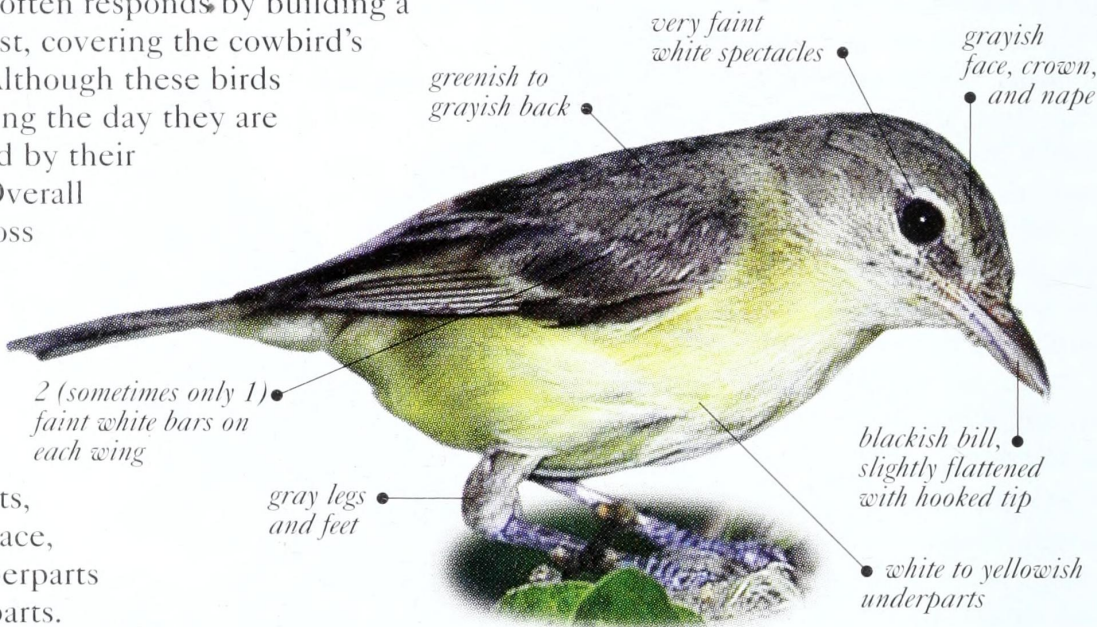
Plumage	Sexes similar	Habitat 	Migration	Nonmigratory	Weight	0.5 ounce
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DATE _____ TIME _____ LOCATION _____

Family VIREONIDAE	Species <i>Vireo bellii</i>	Length 4.75 inches	Wingspan 7–8 inches
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BELL'S VIREO

This small plain bird is the western counterpart of the White-eyed Vireo. It is a frequent victim of the Brown-headed Cowbird, which often lays eggs in its nest – the vireo often responds by building a new floor in the nest, covering the cowbird's eggs and its own. Although these birds actively forage during the day they are most often detected by their frequent singing. Overall plumage varies across its range, from the eastern and midwestern birds, which have greenish upperparts and yellowish underparts, to the West Coast race, which has gray upperparts and whitish underparts.



- **SONG** Male sings husky rapid jumble of question-and-answer-sounding phrases such as *cheadle cheadle chee? cheadle cheadle chew!* Often a phrase with rising inflection, followed by one that ends with a descending note. An active singer, may sing 8–17 songs a minute. Incubating males may sometimes sing from the nest. Call notes are harsh and scolding.
- **BEHAVIOR** Secretive and active. Often pumps tail. Sings often, revealing its presence in the thickets (particularly riparian), hedgerows, and scrub that it frequents. Eats variety of insects gleaned from the stems, branches, and foliage; also some fruits and berries. Courting male actively chases female, spreading tail, fluttering wings, and constantly singing.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 14 days by both sexes. Young altricial; stay in nest 11–12 days, fed by both sexes. 2 broods per year.
- **POPULATION** Uncommon; declining in some regions. Some western riparian populations endangered.

• **CONSERVATION** Declining in Midwest and California from habitat loss, especially riparian habitat in arid and semiarid landscapes; frequent cowbird parasitism. Neotropical migrant.

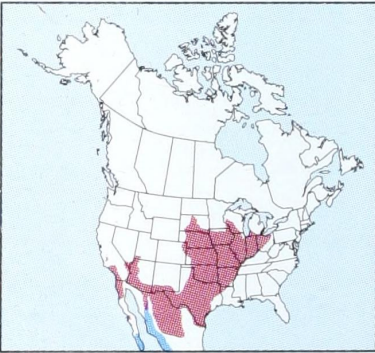
Similar Birds



GRAY VIREO
Larger; gray overall; paler underparts; one or two faint wing bars; distinct eye ring; different song.



WHITE-EYED VIREO
Juvenile • dark eyes; grayish olive upperparts; whitish underparts with wash of yellow on sides and flanks; yellow spectacles; two white wing bars; voice differs.



Flight Pattern

Relatively rapid direct flight with shallow wing beats.

Nest Identification

Shape

Location

Dry leaves, shredded bark, plant fibers, and spider cocoons, lined with fine grass, down, and hair • hung from fork in tree or shrub or suspended by rim between two limbs • 1–5 feet above ground • built by both sexes • 3–5 white eggs, usually dotted with black or brown; oval, 0.7 x 0.5 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.3 ounce
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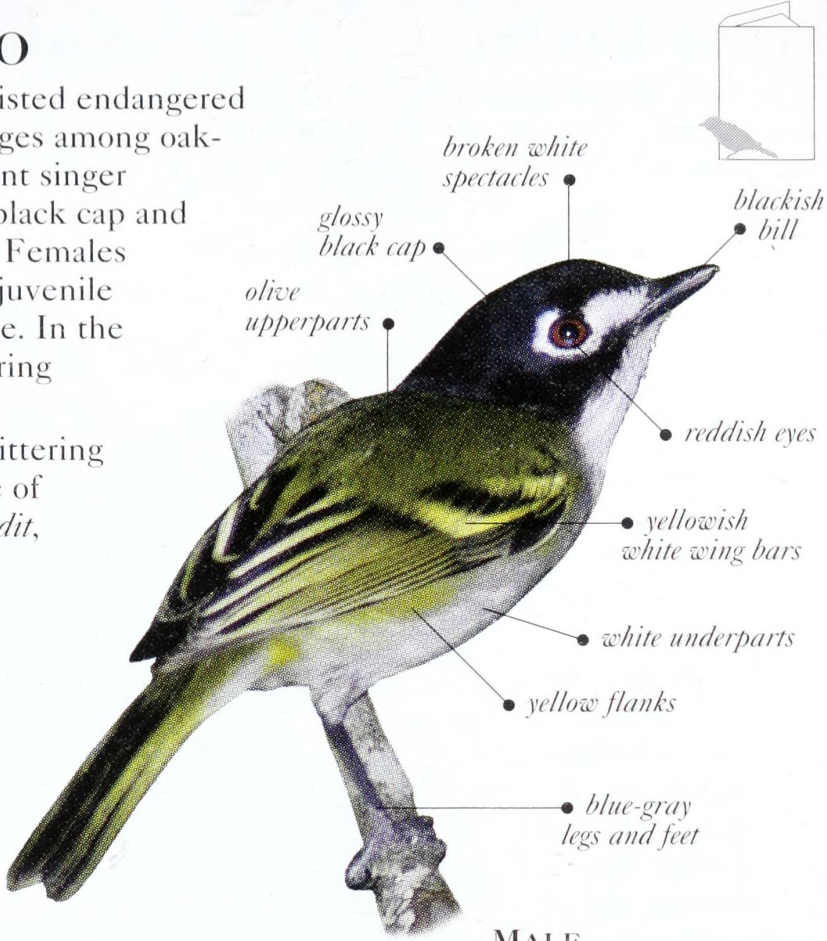
DATE _____ TIME _____ LOCATION _____

Family VIREONIDAE	Species <i>Vireo atricapillus</i>	Length 4.5 inches	Wingspan 8 inches
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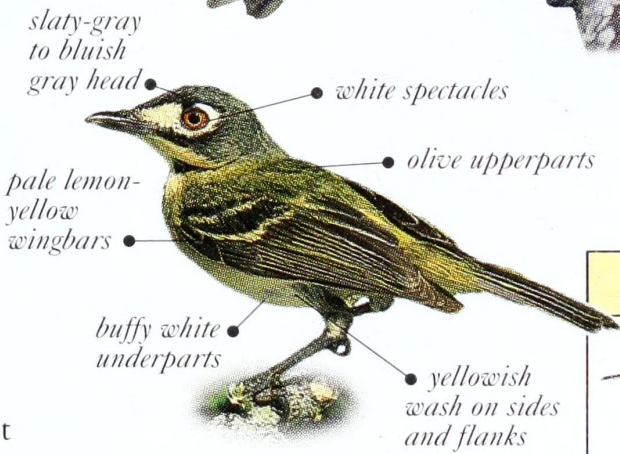
BLACK-CAPPED VIREO

The Black-capped Vireo is a federally listed endangered species. Difficult to spot because it forages among oak-scrub and dense thickets, it is a persistent singer often detected by its song. The male's black cap and broken white spectacles are distinctive. Females can be identified by the slate-gray cap; juvenile females have more buff-colored plumage. In the fall, this bird migrates southwest, wintering along the western coast of Mexico.

- **SONG** Persistent hurried series of twittering insistent 2- or 3-note phrases suggestive of *come here, right-now-quick!* Call note is *ji-dit*, similar to Ruby-crowned Kinglet.
- **BEHAVIOR** Solitary or in pairs. Secretive. Searches restlessly for food in deep cover among trees and thickets, looking for insects, their eggs, and larvae. Also eats small spiders and small fruits and berries. During fluttering display flight, male sings courtship song to female or follows her, singing and spreading tail.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 14–17 days by both sexes; female at night and both sexes alternating during day. Young altricial; stay in nest 10–12 days, fed by both sexes. 2 broods per year.
- **POPULATION** Endangered. Uncommon to fairly common and local. Extirpated over much of its former range.
- **CONSERVATION** Cowbird brood parasitism a factor, with more than 90 percent of vireo nests parasitized in some areas, such as the Edwards Plateau in Texas. An additional known factor is the loss of oak-juniper habitat, primarily due to the development of land.



MALE

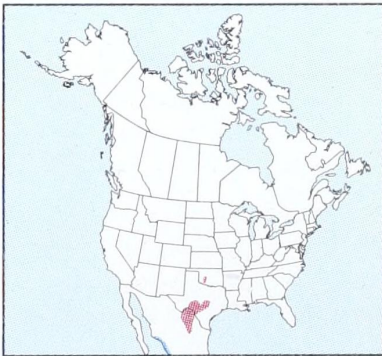


FEMALE

Similar Birds



BLUE-HEADED VIREO
Female or juvenile
• larger; gray hood; white spectacles and throat; olive-green back; yellowish white wing bars and edging on tertials; greenish yellow edging on secondaries.



Flight Pattern

Somewhat weak fluttering direct flight on rapidly beating wings.

Nest Identification

Shape Location

Vegetation, including twigs, bark, and leaves, bound with silk and lined with fine grasses, 1–15 feet in scrub oak or other short deciduous tree • built by both sexes • 3–5 white eggs, unmarked; oval, 0.7 x 0.5 inches.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.3 ounce
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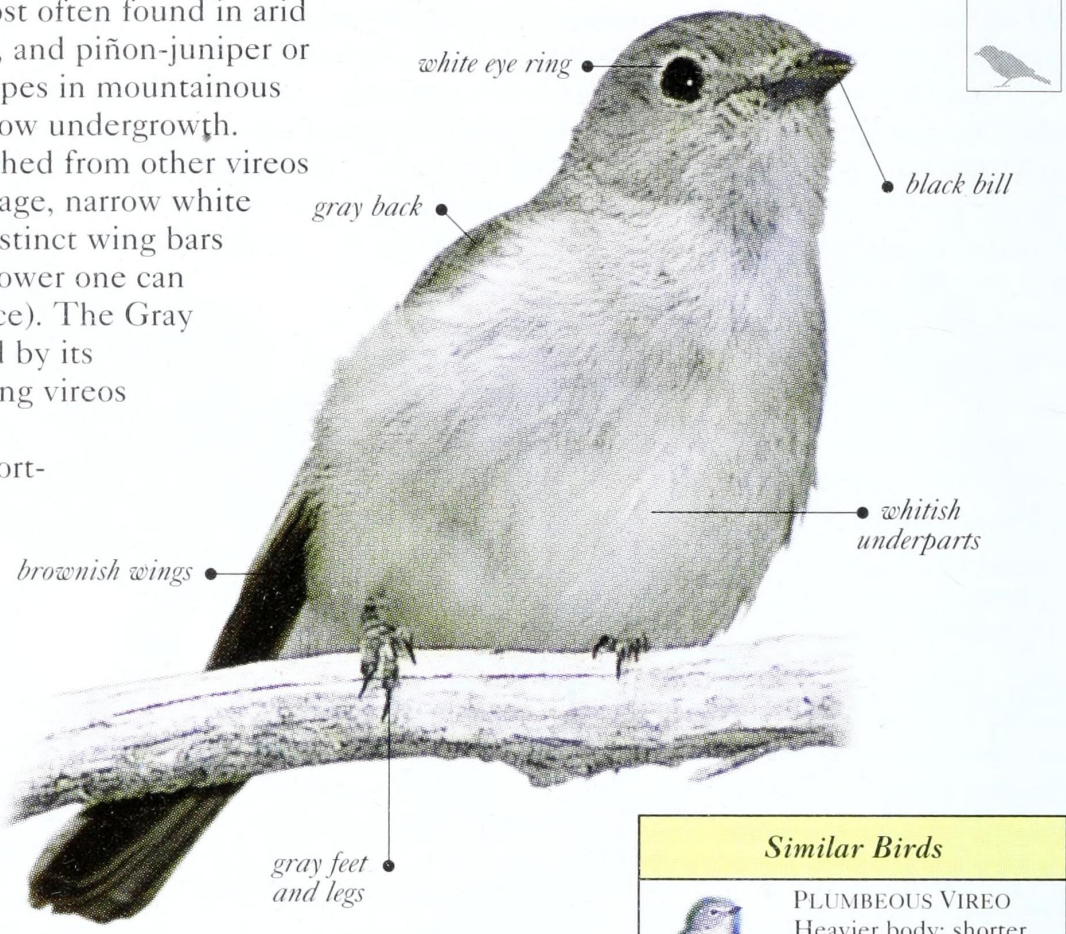
DATE _____ TIME _____ LOCATION _____

Family VIREONIDAE	Species <i>Vireo vicinior</i>	Length 5.5 inches	Wingspan 8.75 inches
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GRAY VIREO

The Gray Vireo is most often found in arid thorn scrub, chaparral, and piñon-juniper or oak-juniper on the slopes in mountainous regions. It forages in low undergrowth. This bird is distinguished from other vireos by its plain gray plumage, narrow white eye ring, and two indistinct wing bars (sometimes only the lower one can be seen from a distance). The Gray Vireo also is identified by its unique tendency among vireos to flick its long tail gnatcatcher-like. A short-distance migrant, the Gray Vireo winters in Mexico.

- **SONG** Song musical; a hesitant and slightly jerky, patchy *chu-wee, chu-wee, che-weet, chee, ch-churr-weet*, similar to Plumbeous Vireo but less throaty. Males often sing with varying inflections. In alarm, scolds wrenlike, issuing a low harsh *churr* or *schray*.
- **BEHAVIOR** Solitary or in pairs; small family groups in nesting season. Hops and flicks tail with jerky movements from low- to mid-level perches 1–12 feet above ground. Often stays concealed in dense foliage of trees and brush, including junipers and sagebrush. Feeds on variety of insects, which it gleans from branches, foliage, or ground.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 13–14 days by both sexes. Young altricial; remain in nest 13–14 days and are fed by both sexes. 2 broods per year.



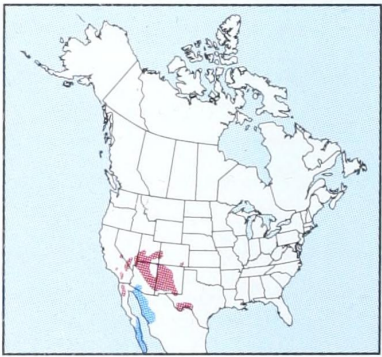
Similar Birds



PLUMBEOUS VIREO
Heavier body; shorter tail, not pumped or flicked; bold white spectacles; two bold wing bars; olive-gray wash and streaking on sides and flanks.



BELL'S VIREO
Smaller; two faint wing bars; faint white spectacles; olive to gray upperparts; yellow to whitish underparts; does not wag or flick tail; voice differs.



Flight Pattern

Weak somewhat fluttering direct flight on rapidly beating wings.

Nest Identification

Shape		Location	
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- **POPULATION** Fairly common. Mostly stable. Some decline in California. Accidental in Wisconsin.
- **CONSERVATION** Frequent victim of brood parasitism by cowbirds; often covers eggs with new nest.

Grasses, twigs, shredded bark, leaves, spider webs, and insect cocoons; lined with fine grass • 2–6 feet above ground in shrub • built by both sexes • 3–5 rose-colored eggs, with brown spots, especially near large end; oval, 0.7 x 0.5 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.5 ounce
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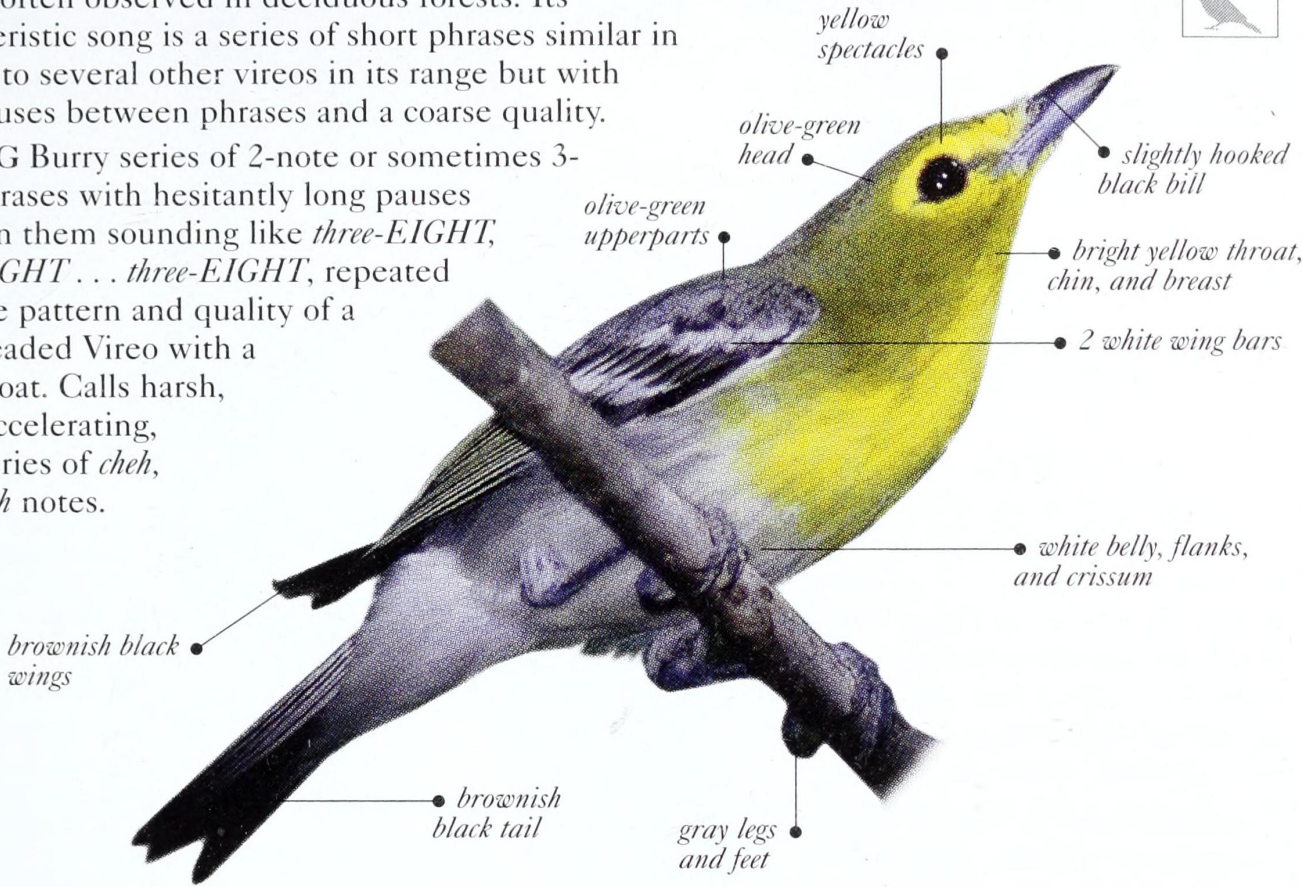
DATE _____ TIME _____ LOCATION _____

Family VIREONIDAE	Species <i>Vireo flavifrons</i>	Length 5.5 inches	Wingspan 9.5 inches
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YELLOW-THROATED VIREO

Considered the most brilliantly colored vireo, this bird is most often observed in deciduous forests. Its characteristic song is a series of short phrases similar in pattern to several other vireos in its range but with long pauses between phrases and a coarse quality.

- **SONG** Burry series of 2-note or sometimes 3-note phrases with hesitantly long pauses between them sounding like *three-EIGHT, three-EIGHT . . . three-EIGHT*, repeated with the pattern and quality of a Blue-headed Vireo with a sore throat. Calls harsh, nasal, accelerating, rapid series of *cheh, cheh, cheh* notes.



- **BEHAVIOR** Solitary or in pairs. In autumn migration may form mixed foraging flocks. Generally forages in treetops, eating mostly insects. Also eats some small fruits and berries. In courtship male performs nest-building display, singing and crouching before female. He often begins several nests in his territory before pairing.

- **BREEDING** Monogamous. Solitary nester.

- **NESTING** Incubation 14 days by both sexes. Altricial young stay in nest 14 days. Fed by both sexes. 1 brood per year.

- **POPULATION** Fairly common and stable overall but declining in the Northeast (particularly in areas with insecticide spraying of shade trees) and increasing in the upper Midwest. Rare vagrant in the West; casual in winter in south Florida.

Flight Pattern

Relatively weak fluttering direct flight with rapid wing beats.

Nest Identification

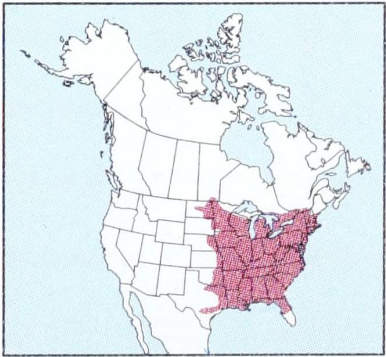
Shape Location

- **CONSERVATION** Neotropical migrant. Common brood parasite host for Brown-headed Cowbird; sometimes builds second floor to cover its own eggs as well as cowbird's.

Grass covered with lichens • lined with grass, shredded bark, spider webs, and cocoons • in deciduous trees 3–60 feet above ground • built by both sexes • 3–5 white to pinkish white eggs with brown spots, especially near large end; oval, 0.7 x 0.5 inches.

Similar Birds

PINE WARBLER
Slender, pointed bill; slightly notched tail; yellow chin and throat; yellow breast and sides with dusky streaking; thin, broken yellow eye ring; narrow yellow superciliary mark; thin, straight black bill; white tail spots.



Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.6 ounce
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DATE _____ TIME _____ LOCATION _____

Family VIREONIDAE	Species <i>Vireo plumbeus</i>	Length 5.25 inches	Wingspan 8.5 inches
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PLUMBEOUS VIREO

Formerly considered the grayest inland western race of the Solitary Vireo, this species was recently split from that complex. A bird of the Rocky Mountain environs, it breeds at almost ten thousand feet and frequents pines and pine-oak forests. It is much grayer than its two sibling species, with an olive-gray rump and mostly devoid of any yellow, which, if present, shows as a wash on the gray-streaked flanks.

- **SONG** Varied; hesitant pauses and coarse nasal phrases much like a hoarse Blue-headed Vireo or a Cassin's Vireo, *churveh, ch-ireet', ch-reeh cg-ireet*, often repeated. Calls a chattering *cheh-cheh-cheh, cheh*, often accelerating.
- **BEHAVIOR** Solitary or in pairs. Forages and perches from mid to high levels in trees. Deliberately searches for insects, which it gleans from the foliage or bark surfaces. Takes a few fruits and berries, especially in fall. Male performs nest-building courtship display, crouching low in front of female and spreading tail. May chase female in courtship flight. Incubating and brooding birds sit tightly on the nest, sometimes allowing themselves to be touched by humans.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 14–15 days by both sexes. Young altricial; brooded by female and fed by both sexes, but mostly by male. Fledge at 14–15 days. 1 brood per year.
- **POPULATION** Fairly common in varied pine and pine-oak woodland habitats. Accidental in Louisiana; other eastern records are unconfirmed.



Similar Birds



CASSIN'S VIREO
Smaller; less gray overall; greenish gray head and upperparts; olive wash on sides and flanks.

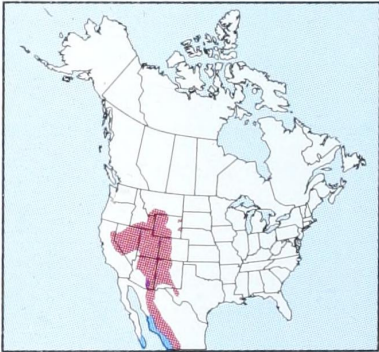


GRAY VIREO
Not as heavily built; paler upperparts; long tail that it flicks and pumps; more faint wing bars (lower one more prominent); lacks spectacles; has white eye ring.

Flight Pattern	
Somewhat weak fluttering direct flight on rapidly beating wings.	

Nest Identification	
Shape	Location

- **CONSERVATION** Neotropical migrant. Fairly common victim of cowbird parasitism. Vulnerable to habitat loss due to logging.



Bark, grasses, plant fibers, and spider web, lined with fine grasses and plant down • suspended between fork near tip of branch in tree or bush • 4–30 feet above ground • built by both sexes • 3–5 white eggs, spotted at larger end with reddish brown; oval, 0.7 x 0.5 inches.

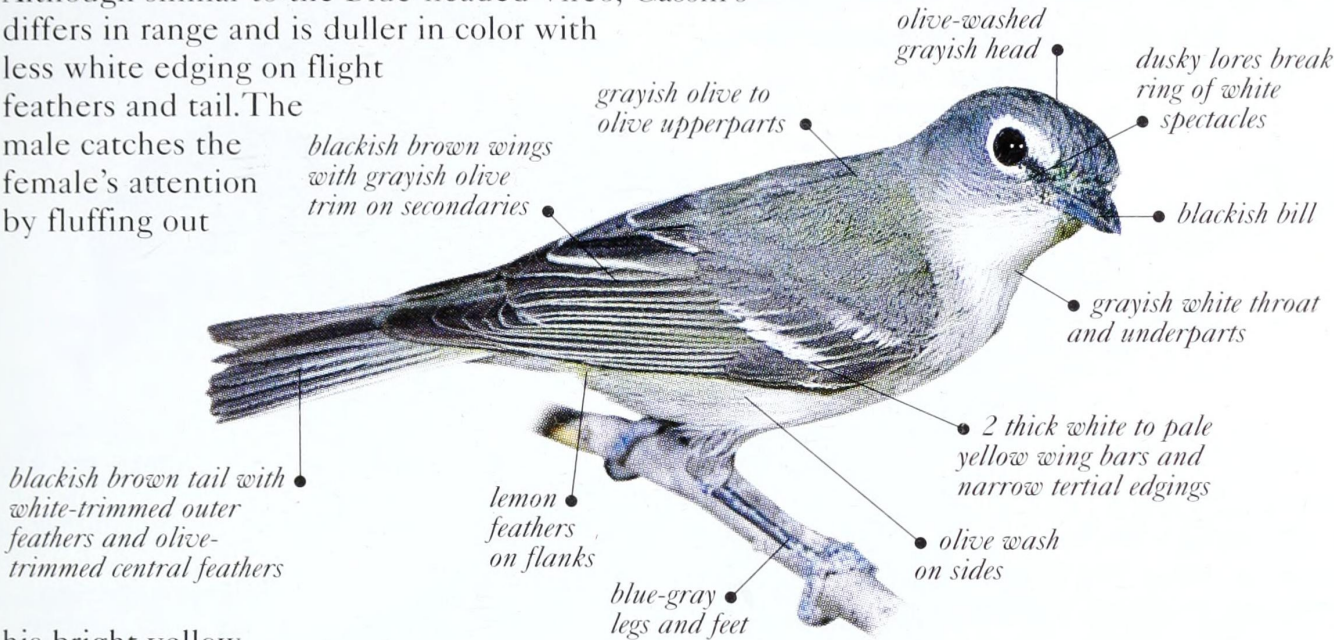
Plumage Sexes similar	Habitat	Migration Migratory	Weight Undetermined
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DATE _____ TIME _____ LOCATION _____

Family VIREONIDAE	Species <i>Vireo cassinii</i>	Length 5 inches	Wingspan 8.5 inches
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CASSIN'S VIREO

Until the 1990s this bird and the Blue-headed and Plumbeous Vireos were classified as one species – the Solitary Vireo. Although similar to the Blue-headed Vireo, Cassin's differs in range and is duller in color with less white edging on flight feathers and tail. The male catches the female's attention by fluffing out



- his bright yellow flank feathers and bowing up and down to her. Juvenile Cassin's females sometimes have greenish heads.
- **SONG** A mixed jumble of hesitant phrases, punctuated by short deliberate pauses, such as *chreu ... ch'ree ... choo'reet* or *ch-ree ... ch-ri'chi-roo*, often repeated.
 - **BEHAVIOR** Solitary or in pairs. Forages high in trees by gleaning food from bark, branches, or foliage; sometimes hovers briefly to pick food off vegetation or catch insects in flight. Eats insects, larvae, and various fruits. Frequents open coniferous, coniferous-deciduous, pine-oak, or oak woodlands. Male performs nest-building display for female with no nesting material in mouth. Fairly tame on nest, allowing close approach.
 - **BREEDING** Monogamous. Solitary.
 - **NESTING** Incubation 11–12 days by both sexes, but female does more. Young altricial; stay in nest 12–14 days, fed by both sexes. 1–2 broods per year.

Similar Birds

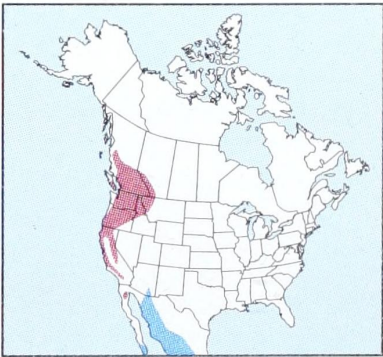


PLUMBEOUS VIREO
Slightly larger; thicker bill; gray head and upperparts; more contrast between white throat and head and sides of breast; grayish sides and flanks with grayish streaking and without strong yellow wash.



HUTTON'S VIREO
Smaller; white eye ring breaks above eye; pale lores; grayish olive upperparts; different voice • only in the West.

- **POPULATION** Fairly common. Casual in winter in northwest California. Accidental in southeast Alaska, Oklahoma, New York, and New Jersey.
- **CONSERVATION** Neotropical migrant. Vulnerable to habitat loss due to logging.



Flight Pattern

Somewhat weak fluttering direct flight on rapidly beating wings. May hover briefly to pick insect or fruit off vegetation.

Nest Identification

Shape Location

Twigs, fine grasses, and stems, lined with finer grasses and hair • in fork of twig of tree or bush or set in middle of conifer, 4–30 feet above ground • built by both sexes • 3–5 white to creamy white eggs, with black and brown speckles; oval, 0.7 x 0.5 inches.

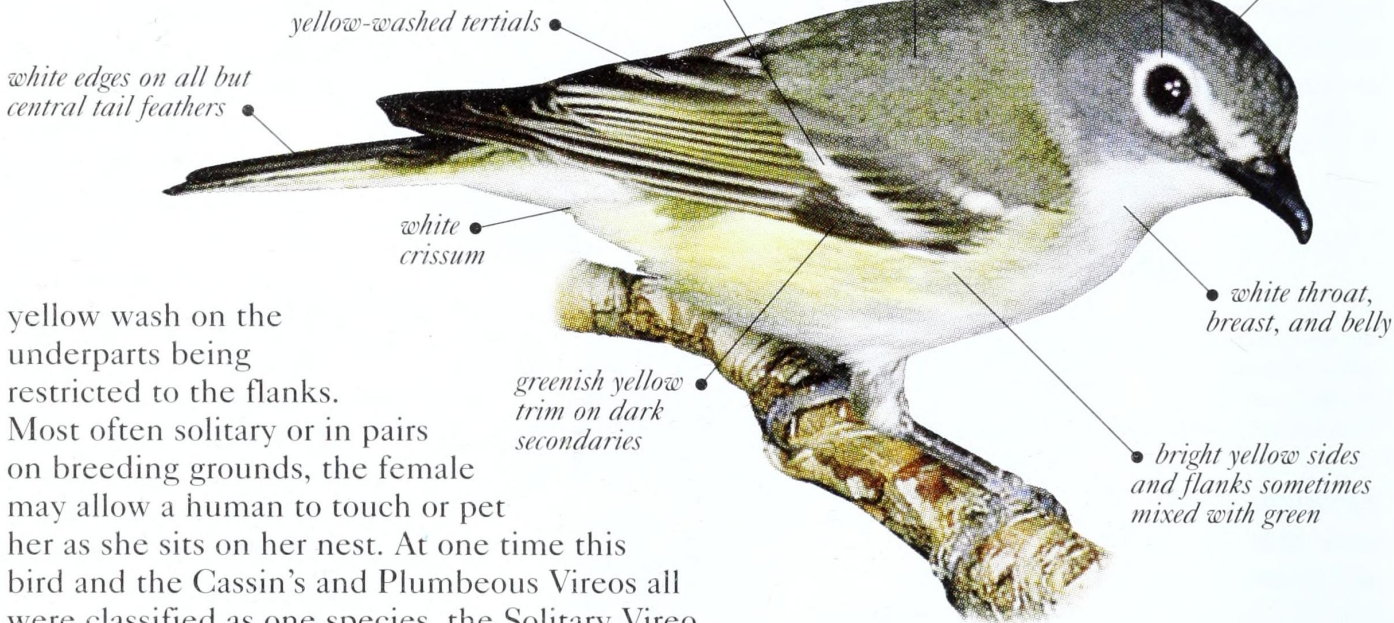
Plumage Sexes similar	Habitat	Migration Migratory	Weight Undetermined
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DATE _____ TIME _____ LOCATION _____

Family VIREONIDAE	Species <i>Vireo solitarius</i>	Length 5.25 inches	Wingspan 8.5 inches
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BLUE-HEADED VIREO

This bird makes its home in the thick coniferous and mixed coniferous-deciduous forests of Canada and the eastern United States, where it breeds southward through the southern Appalachians. The Appalachian race is larger, with a bluish gray back and the



yellow wash on the underparts being restricted to the flanks.

Most often solitary or in pairs on breeding grounds, the female may allow a human to touch or pet her as she sits on her nest. At one time this bird and the Cassin's and Plumbeous Vireos all were classified as one species, the Solitary Vireo.

- **SONG** Slow drawn-out phrases with deliberate pauses between them, *cherry-o-wit . . . cheree . . . sissy-a-wt*, repeated frequently throughout the day. High, clear, sweet, sometimes piercing notes. Call notes resemble a husky chatter.
- **BEHAVIOR** Solitary or in pairs. Early spring migrant in the Southeast; the first vireo back in the woods in spring. Gleans insects, its principal food, from treetops and branches. Sometimes catches insects in midair or hovers briefly to pick them off foliage or branches. Eats some fruits, especially in winter. Male courts female with much bobbing, singing, and fluffing of yellowish flank feathers. Fairly tame.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 12–14 days by both sexes. Altricial young stay in nest 12–14 days. Fed by both sexes. Occasionally 2 broods per year, particularly in the Southeast.
- **POPULATION** Common in mixed woodlands and at higher elevations in southern Appalachians. Casual to accidental in southwestern US.

Flight Pattern

Somewhat weak, fluttering flight with rapid wing beats. May hover briefly over prey and dip to pick it off branch or foliage.

Nest Identification

Shape

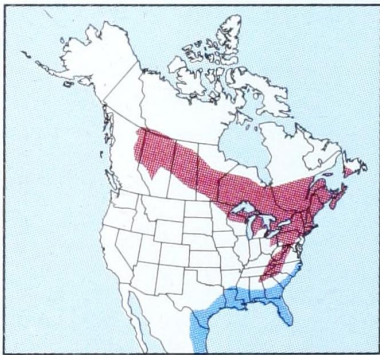
Location

Twigs, fine grass, shredded bark, stems, spider webs, and cocoons; decorated with lichens • lined with finer materials, including grasses and hair • in fork of tree or bush or in middle of conifer 4–30 feet above ground • built by both sexes • 3–5 white eggs with black and brown markings, especially near large end; oval, 0.8 x 0.6 inches.

Similar Birds



BLACK-CAPPED VIREO ♀
 Smaller • shorter, slimmer bill; glossy black cap; red eye
 • juvenile similar to female but has more buff underparts.



Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.6 ounce
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DATE _____ TIME _____ LOCATION _____

Family VIREONIDAE	Species <i>Vireo gilvus</i>	Length 5–5.5 inches	Wingspan 8.75 inches
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WARBLING VIREO

Wintering in Mexico and Central America, this bird has the largest breeding range of any vireo in the woodlands of North America. Although common over most of its range, it is not well known by many people other

than birders. The drab male rapidly sings his warbled phrases throughout the day while perched near the treetops. Sometimes this bird is difficult to spot, because its plumage is camouflaged.

• **SONG** Pleasant unhurried warble of 12–20 notes, ending abruptly with mnemonic of *I'll seize you and I'll squeeze you and I'll squeeze you 'til you squirt!* Western birds sing a higher, less musical song, often with breaks between introductory notes. Call is abrasive, nasal, upslurred *queeh*.

• **BEHAVIOR** Solitary or in pairs. Found in treetops in woodlands, shade trees in towns, and especially large trees in riparian zones. Forages for food high in trees and catches some insects in flight. Eats various insects, caterpillars, moth and butterfly eggs, and some fruits.

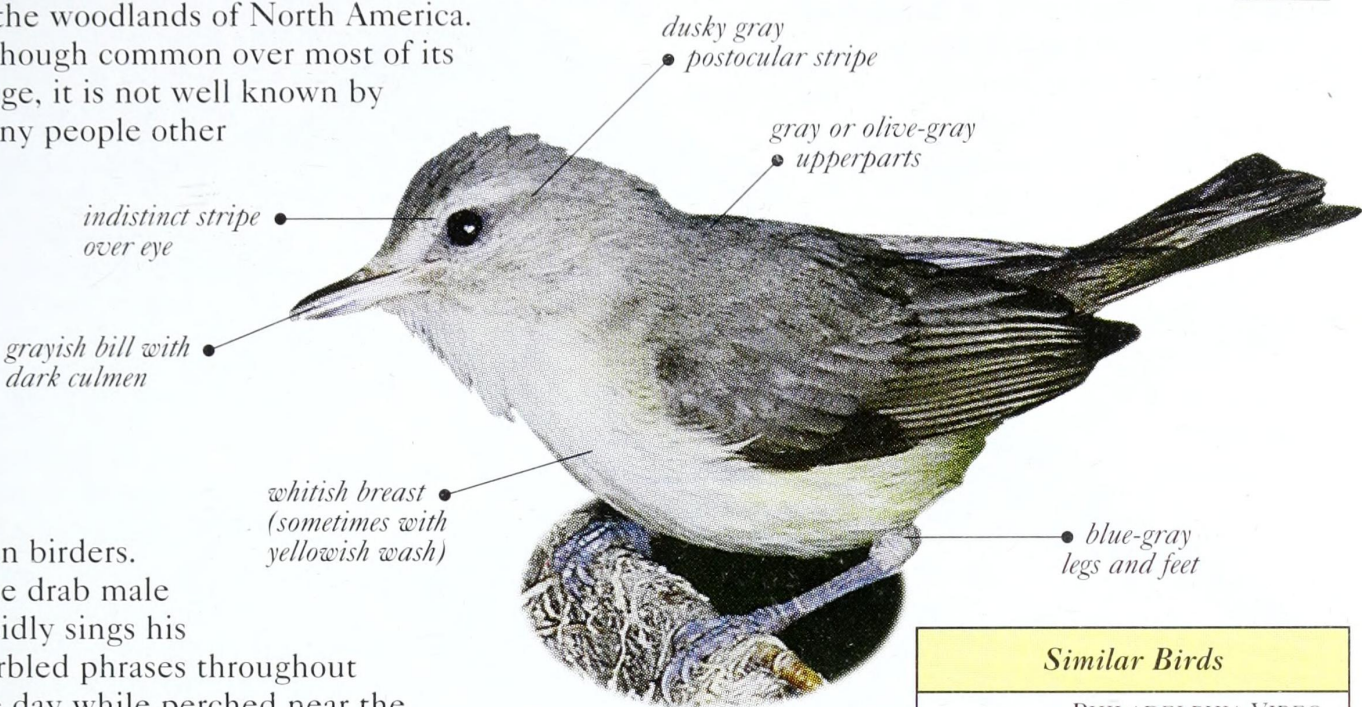
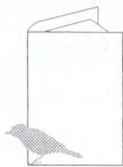
• **BREEDING** Monogamous. Solitary nester.

• **NESTING** Incubation 12 days by both sexes. Altricial young remain in nest 16 days. Fed by both sexes. 1 brood per year.

• **POPULATION** Common. Widespread range is increasing.

• **CONSERVATION**

Neotropical migrant. Common host for brood parasitism by the Brown-headed Cowbird. Has declined in the East in areas where shade trees are sprayed with pesticides.



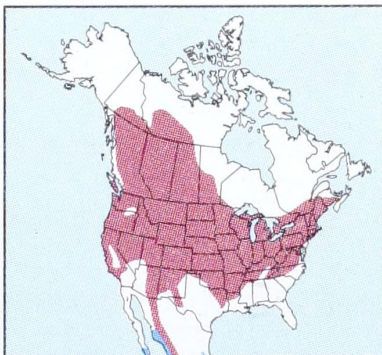
Similar Birds



PHILADELPHIA VIREO
Dark eye stripe; dark lores; yellow wash on throat and breast; white supercilium contrasts with dark gray crown; dark primary coverts; different voice.



TENNESSEE WARBLER
Smaller, slender bill lacks hook; gray crown; white supercilium; dark lores and postocular stripe; white undertail coverts; greenish upperparts; different song • female, juvenile, and fall male have yellow-washed underparts.



Flight Pattern

Weak fluttering flight with rapid wing beats. Sometimes hovers briefly over foliage or branch, dipping for insect.

Nest Identification

Shape Location

Bark strips, leaves, vegetation fibers, and grass • hangs between fork toward end of branch, twig, or sometimes shrub, usually 4–15 feet above ground • built by both sexes • 3–5 white eggs spotted with brown and black; oval, 0.8 x 0.5 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.5 ounce
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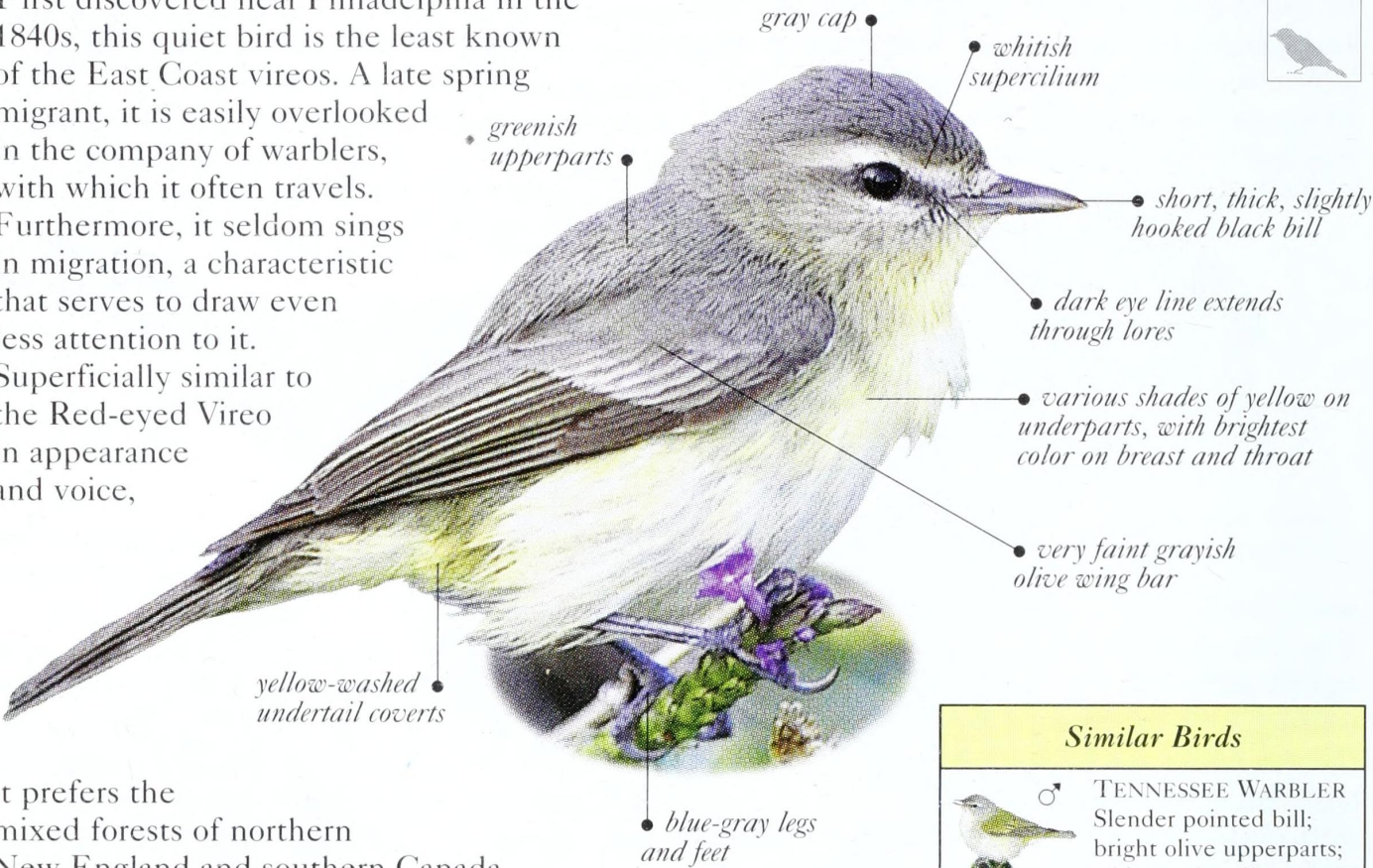
DATE _____ TIME _____ LOCATION _____

Family VIREONIDAE	Species <i>Vireo philadelphicus</i>	Length 4.75–5.25 inches	Wingspan 8–9 inches
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PHILADELPHIA VIREO

First discovered near Philadelphia in the 1840s, this quiet bird is the least known of the East Coast vireos. A late spring migrant, it is easily overlooked in the company of warblers, with which it often travels. Furthermore, it seldom sings in migration, a characteristic that serves to draw even less attention to it. Superficially similar to the Red-eyed Vireo in appearance and voice,



it prefers the mixed forests of northern New England and southern Canada.

- **SONG** On breeding territory, sings a high drawn-out *cherrie-o-witt*, *cheree*, *sissy-a-wit*, *tee-o*, similar to song of Red-eyed Vireo, but thinner, higher-pitched, and slower. Call note a low nasal *rreh*.
- **BEHAVIOR** Tame. Solitary or in pairs. Very active forager, often hanging upside down beneath foliage, chickadee-like, as it picks off insects. Sometimes slow and deliberate foraging in low- to mid-level vegetation. Gleans off leaves and branches and may feed while hovering. Eats a variety of insects, some fruits and berries.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 14 days by both sexes. Young altricial; remain in nest 12–14 days, fed by both sexes. 1 brood per year.

Similar Birds

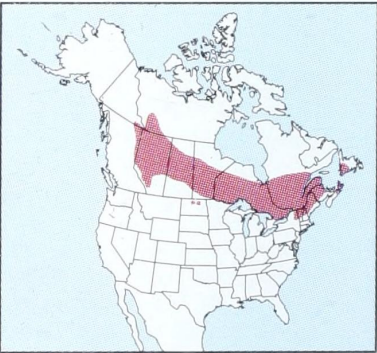


TENNESSEE WARBLER
Slender pointed bill; bright olive upperparts; white undertail coverts; indistinct wing bar; short tail • females, juveniles, and fall males have yellowish wash on underparts.

WARBLING VIREO
Olive-gray upperparts and head; indistinct white superciliary line; pale lores; white or whitish throat; white underparts with yellowish wash on sides and on flanks; lacks wing bars.

Flight Pattern

- **POPULATION** Uncommon; stable. Casual to rare in the West, mainly during migration in the fall.
- **CONSERVATION** Neotropical migrant. Rare host to cowbird brood parasitism.



Nest Identification

Shape

Location

Grasses, bark, moss, lichen, and plant down, hung by spider silk and webbing of insects • hung from fork in small twig or branch, 30–80 feet above ground • built by female • 3–5 white eggs, usually speckled brown and black, especially toward large end; oval, 0.8 x 0.5 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.4 ounce
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DATE _____ TIME _____ LOCATION _____

Family VIREONIDAE	Species <i>Vireo olivaceus</i>	Length 6 inches	Wingspan 10 inches
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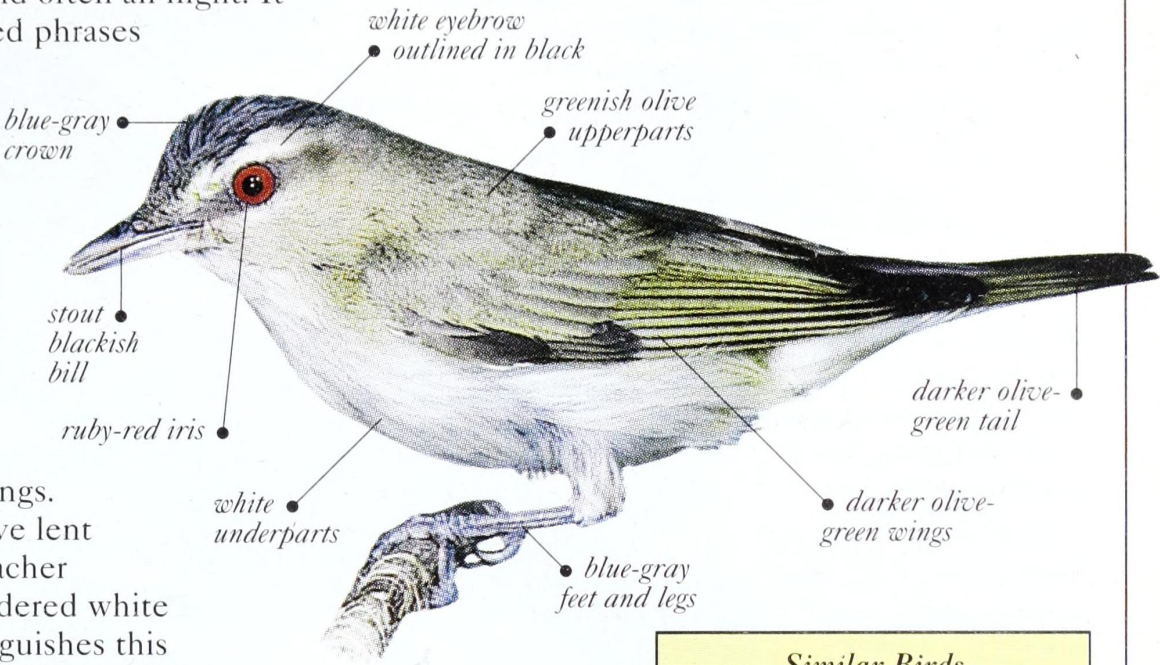
RED-EYED VIREO

One of the most abundant in North American deciduous forests, this bird sings almost nonstop from dawn to dusk and often all night. It delivers its brief trilled phrases as it sits on the nest, forages for food, even as it swallows insects.

A researcher once totaled the number of song repetitions uttered by an individual in one summer day as a remarkable 22,197 songs. These “sermons” have lent it the handle of “preacher bird.” The black-bordered white eyebrow stripe distinguishes this bird from other vireos. The red iris is not visible at a distance; juveniles have a brown iris. Juveniles and autumn birds may have a yellowish wash on the flanks.

- **SONG** Repeated phrases and pauses, *look up! . . . see me? . . . over here . . . this way! . . . higher still!* Individuals sing many different repertoires. Call is whining nasal *chewy!*
- **BEHAVIOR** Solitary or in pairs. Picks food off leaves and twigs. Sometimes hovers to snatch food off foliage, bark, or branch. Eats mostly insects; in fall migration lots of fruits and berries. Defensive at nest. Responds readily to pishing and squeaking noises. In migration often joins mixed feeding flocks.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 11–14 days by female. Altricial young stay in nest 10–12 days. Fed by both sexes. 1–2 broods per year.
- **POPULATION** Common in eastern woodlands. Some decline due to clearing of forests in the East. Rare vagrant in migration in the Southwest and on the Pacific Coast.

- **CONSERVATION** Neotropical migrant. Frequent cowbird brood parasitism. Vulnerable to poisoning by ingesting insects sprayed with pesticides and Gypsy Moth control programs.



Similar Birds



BLACK-WHISKERED VIREO
Larger bill; lacks dark border on upper side of eyebrow; dull green upperparts; black, mustache mark; different song • only in the Southeast.



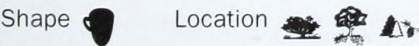
YELLOW-GREEN VIREO
Olive-green upperparts; whitish throat and underparts; bright yellow sides, flanks, and undertail coverts; pale gray or whitish supercilium; gray crown; pale olive auriculars; dusky lores; red eyes.

Flight Pattern

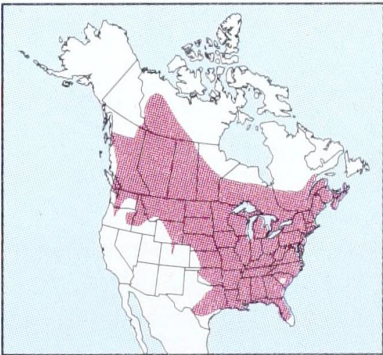


Alternates series of rapid wing beats with short glides within forest. Also hovers briefly to pick insects or berries off foliage.

Nest Identification



Grapevine bark, fine grasses, rootlets, paper from wasp nests, lichens, spider webs, and cocoons • hanging on fork of tree branch or shrub 2–60 feet above ground • built by both sexes, but mostly by female • 3–5 white eggs, most often with fine brown and black dots, especially toward large end; oval, 0.8 x 0.55 inches.



Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.6 ounce
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DATE _____ TIME _____ LOCATION _____

Family VIREONIDAE	Species <i>Vireo flavoviridis</i>	Length 6 inches	Wingspan 10 inches
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YELLOW-GREEN VIREO

Very similar to the Red-eyed Vireo and recently split from it to restore it as a separate species, this native of Mexico has become a rare breeding bird in southern Texas and is being seen more often in southern California in the fall and along the Gulf Coast in spring. It shows extensively yellow-green upperparts (including a face with strong yellow sides), flanks, and undertail coverts, as well as a dull olive crown with more obscure head striping than the Red-eyed Vireo and inconspicuous or absent dark bordering lines.

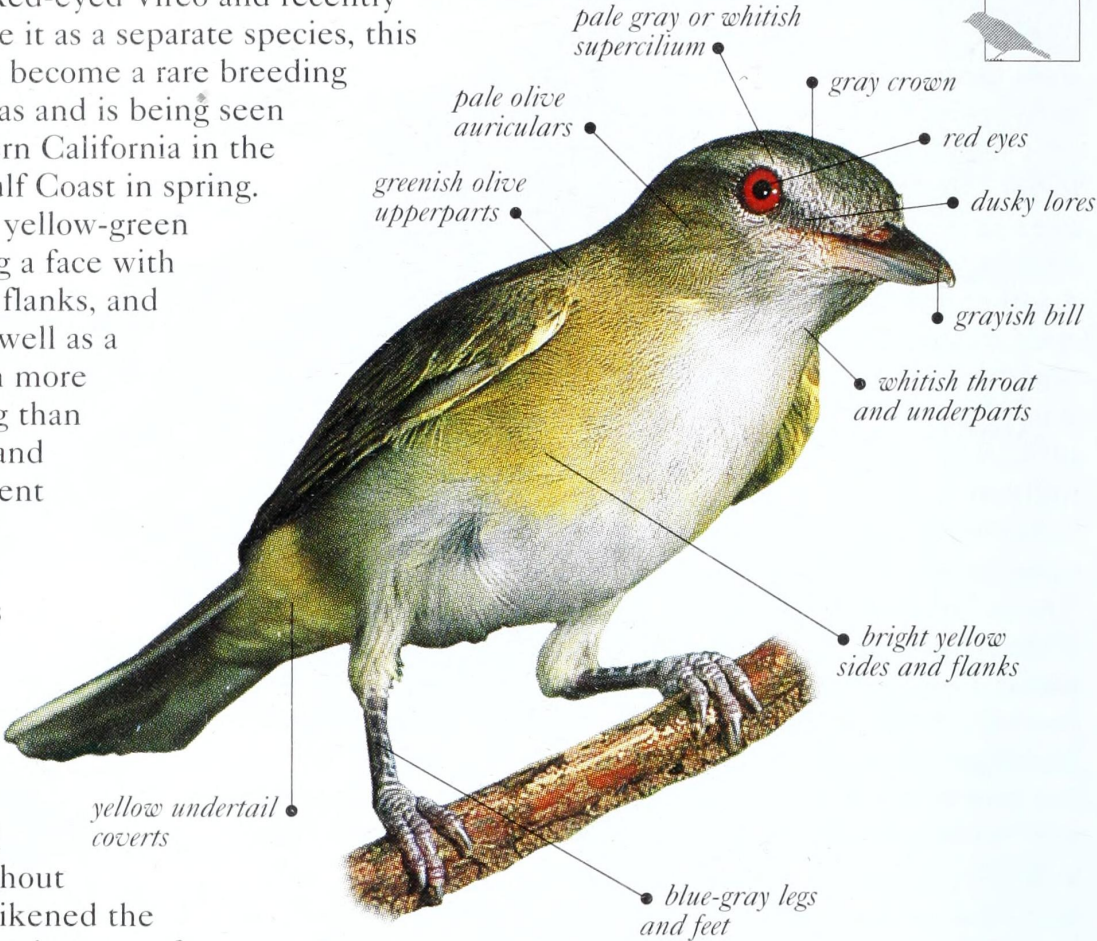
• **SONG** Sings continuously. Song is varied from rich and clear to nasal and abrasive, non-rhythmic jerky *chree-chree, swe, chree-chree*. Repeated over and over throughout the day. Some have likened the quality and pattern to the song of a House Sparrow. Calls are dry chatters and course mewing *rrieeh*.

• **BEHAVIOR** Solitary or in pairs. Deliberate in its movements, foraging in the middle to upper levels of the vegetation. Sometimes joins mixed-species foraging flocks. Picks food off twigs and leaves; may hover briefly to take insect or fruit. Eats a wide variety of insects and spiders; minor part of diet is various seeds and berries.

• **BREEDING** Monogamous. Solitary.

• **NESTING** Incubation 13–14 days by female. Young altricial; stay in nest 12–14 days, fed by both sexes. 1–2 broods per year.

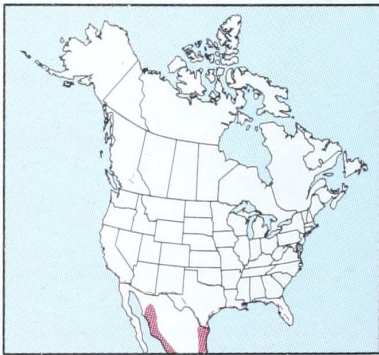
• **POPULATION** Rare to casual in North America; regular in summer in lower Rio Grande Valley of Texas. Casual in spring on Gulf Coast and increasingly regular in fall in coastal southern California.



Similar Birds



RED-EYED VIREO
Blackish lores; black border around white eyebrow; whitish underparts; dark gray cap; olive back and upperparts.



Flight Pattern

Relatively fast direct flight on rapidly beating wings.

Nest Identification

Shape

Location

Grasses, plant fiber, lichen, moss, cobwebs, and strips of papery bark
• hanging between fork from thin branch, 5–40 feet above ground • built by female • 2–4 white eggs with fine dots of brown; oval, 0.8 x 0.5 inches.

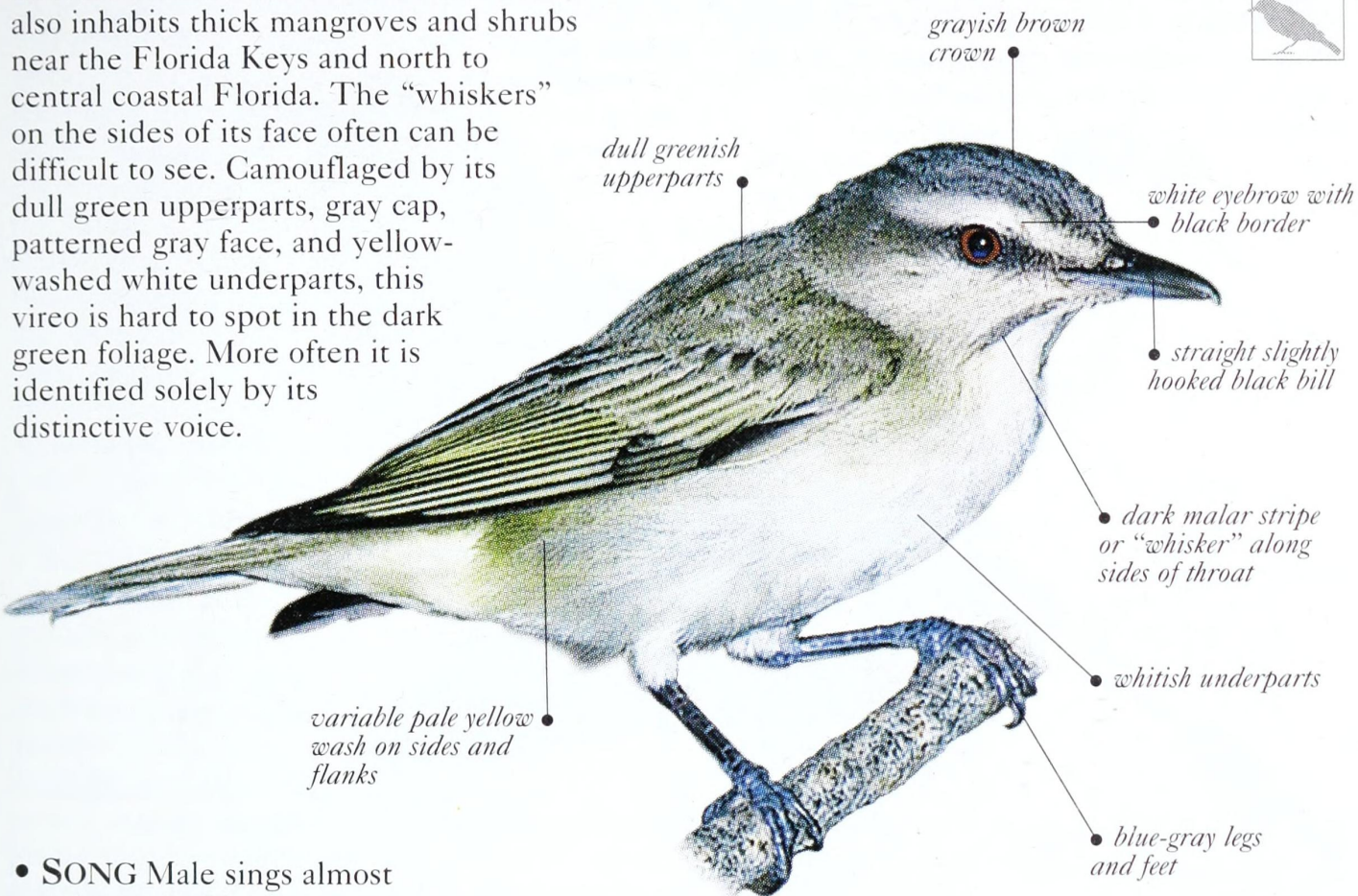
Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.6 ounce
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DATE _____ TIME _____ LOCATION _____

Family VIREONIDAE	Species <i>Vireo altiloquus</i>	Length 6.25 inches	Wingspan 10.5 inches
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BLACK-WHISKERED VIREO

In summer this native of the West Indies also inhabits thick mangroves and shrubs near the Florida Keys and north to central coastal Florida. The “whiskers” on the sides of its face often can be difficult to see. Camouflaged by its dull green upperparts, gray cap, patterned gray face, and yellow-washed white underparts, this vireo is hard to spot in the dark green foliage. More often it is identified solely by its distinctive voice.



- **SONG** Male sings almost continuously. Humorous mnemonics of *whip-tom-KELLY!*, *John-to-whit*, or *cheap-john-stir-up!* set the pattern of the 2- to 4-note (usually 3-note), repeated phrases. Call is mewing *quee!* similar to that of Red-eyed Vireo.
- **BEHAVIOR** Solitary or in pairs. Forages slowly and deliberately. Picks food off leaves and branches. Eats a variety of insects but also takes some spiders and fruits.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 12–14 days by female. Altricial young fledge at 10–12 days. Fed by both sexes. 1 brood per year.
- **POPULATION** Fairly common to common in mangrove swamps of the Florida Keys. Casual along Gulf Coast.

Similar Birds



RED-EYED VIREO
Smaller; shorter bill; whitish supercilium with dark border; dark gray crown; darker olive back; lacks dusky malar mark.

Flight Pattern



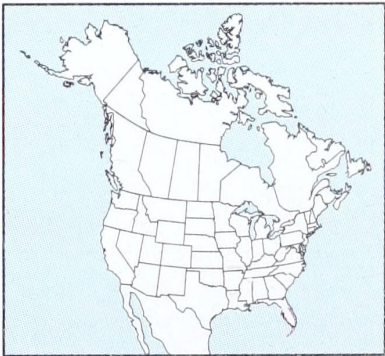
Relatively fast direct flight with shallow, rapid wing beats.

Nest Identification

Shape 

Location 

- **CONSERVATION** Neotropical migrant. Vulnerable to habitat loss as coastal mangroves are lost to development.



Twigs, grass, plant fibers, spider webs, cocoons, and lichens • lined with grass, pine needles, and hair • hangs between fork on thin branch of shrub or tree 3–20 feet above ground • built by female • 2–3 white eggs with fine brown, purple, and black specks; oval, 0.8 x 0.5 inches.

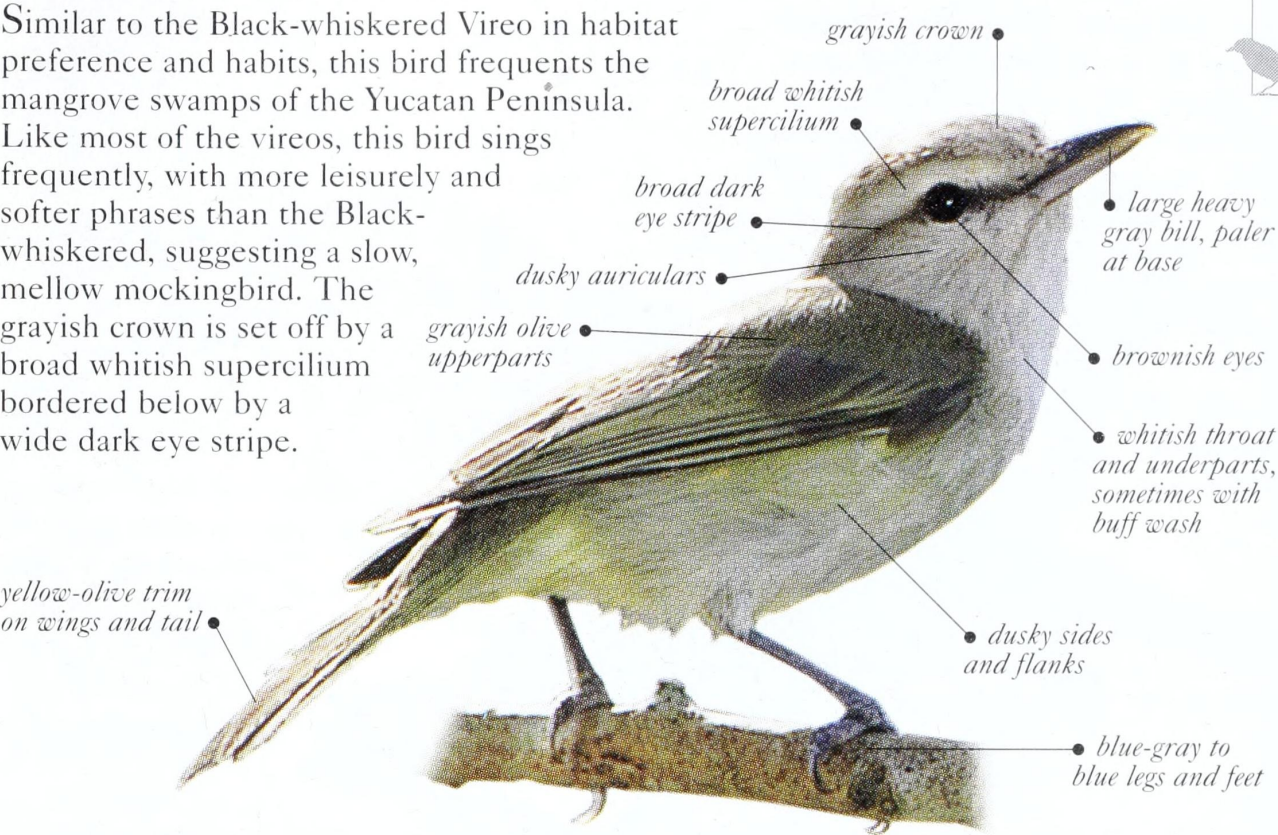
Plumage Sexes similar	Habitat 	Migration Migratory	Weight 0.6 ounce
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DATE _____ TIME _____ LOCATION _____

Family VIREONIDAE	Species <i>Vireo magister</i>	Length 5.7–6.2 inches	Wingspan 10.5 inches
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YUCATAN VIREO

Similar to the Black-whiskered Vireo in habitat preference and habits, this bird frequents the mangrove swamps of the Yucatan Peninsula. Like most of the vireos, this bird sings frequently, with more leisurely and softer phrases than the Black-whiskered, suggesting a slow, mellow mockingbird. The grayish crown is set off by a broad whitish supercilium bordered below by a wide dark eye stripe.



- The whitish underparts are often tinged buff.
- **SONG** Persistent singer, even during the tropical midday heat and sometimes into the night. Jerky, hesitant, nonrhythmic, varied, and mellow phrases of *chu-ree*, *chu-ree* or *chu-i-chu*, *chu-weet*, repeated often. Calls a nasal *peek* and soft dry chatters.
 - **BEHAVIOR** Solitary. A slow deliberate forager, it searches at all levels, low to high, in vegetation. Prefers humid scrubby woodland, mangroves, and edge. Picks food off leaves and branches. Eats mainly insects and fruit, as well as some seeds and small berries.
 - **BREEDING** Monogamous. Solitary.
 - **NESTING** Breeding biology poorly known, but incubation estimated at 12–14 days by female. Young altricial; fed by both

sexes. Leave nest at estimated 10–12 days. 1–2 broods per year.

- **POPULATION** Accidental in US; 1 record occurred in southeast Texas.
- **CONSERVATION** Vulnerable to loss of habitat. Not of concern in the US.

Similar Birds

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RED-EYED VIREO
Blackish lores; white eyebrow has black border; red eyes; dark gray cap; olive back and upperparts.
- 

YELLOW-GREEN VIREO
Dusky lores; pale olive auriculars; red eyes; olive upperparts; bright yellow sides, flanks, and undertail coverts; pale gray or whitish supercilium.



Flight Pattern



Relatively rapid fluttering direct flight on shallowly beating wings.

Nest Identification

Shape 

Location 

Twigs, grasses, and plant fibers, lined with grass, pine needles, and hair, attached with spider webs, lichen, and cocoon material • hanging from twigs in low to mid levels in tree or bush • 3–20 feet above ground • built by female • 2 white eggs, usually speckled with browns and blacks; oval, 0.8 x 0.6 inches.

Plumage Sexes similar	Habitat 	Migration Nonmigratory	Weight 0.5 ounce
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DATE _____ TIME _____ LOCATION _____

Family CORVIDAE	Species <i>Perisoreus canadensis</i>	Length 11.5 inches	Wingspan 16–17 inches
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GRAY JAY

Sometimes called the “camp robber,” the Gray Jay is known for its bold behavior. Often observed at cabins and campsites, it will steal food and nonedible items. With its large salivary glands, it secretes mucous that allows it to store food by sticking it on twigs, pine needles, and tree branches.

Several geographical races exist across its coast-to-coast range. These races vary most noticeably in the extent of the dark patch on the nape and crown, from almost none in the Rocky Mountain races to extensive patches in the races inhabiting the northwest coast. Juveniles are entirely sooty gray with a whitish mustache. Although nonmigratory, birds practice some altitudinal migration in winter.

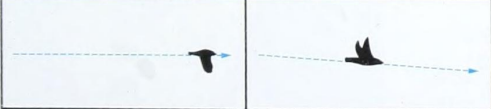
• **SONG** Has a large repertoire of calls, including a fluted *wheeeo* and a low *chuck*. Calls also include a bold hawklike whistle, as well as a *cla-cla-cla-cla-cla*. Sometimes mimics hawk cries and songs sung by small birds.

• **BEHAVIOR** Tame, bold, and curious. Caches food. Omnivorous. Eats mice, eggs, and young of other birds. Takes a variety of insects, carrion, camp food, seeds, nuts, and berries. Shows no fear of humans and comes close to snatch food and other objects. Males engage in courtship feeding of females.

- **BREEDING** Monogamous. Small colonies.
- **NESTING** Incubation 16–18 days by female. Young altricial; stay in nest 15–21 days, fed by both sexes. 1 brood per year.
- **POPULATION** Common to fairly common in conifer and mixed-conifer forests. Declining in some areas due to timber harvesting. Casual in winter in midwestern and northeastern states just south of breeding range.

- **FEEDERS** Will attend feeders with corn, suet, and sunflower seeds.
- **CONSERVATION** Vulnerable to habitat loss from logging operations as well as forest fragmentation.

Flight Pattern



Light buoyant flight on steady wing beats; often glides between perches within or between trees and from perch to ground.

Nest Identification

Shape 

Location 

Lined with moss, grass, sticks, bark, feathers, and fur, fastened together with spider webs and insect cocoons • on horizontal branch near trunk or in crotch of tree, 4–30 feet above ground but can be up to 85 feet • built by both sexes • 2–5 grayish white, pale green, pale gray, sometimes white eggs, with fine olive-buff, brown, or gray spots; oval, 1.2 x 0.8 inches.

Plumage Sexes similar	Habitat 	Migration Nonmigratory	Weight 2.6 ounces
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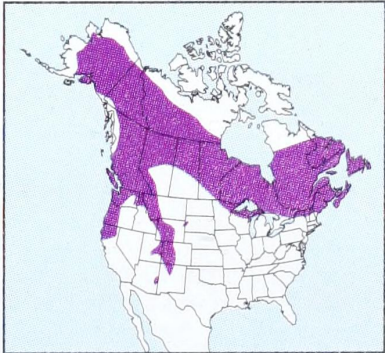


JUVENILE

Similar Birds



CLARK'S NUTCRACKER
Chunky; medium gray upperparts and underparts; short white tail with black central feathers; black wings with white secondaries creating patch on inner wing in flight; entirely gray head; white eye ring; long black bill.



DATE _____ TIME _____ LOCATION _____

Family CORVIDAE	Species <i>Cyanocitta stelleri</i>	Length 11.5 inches	Wingspan 17 inches
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STELLER'S JAY

Recognized as the only crested jay in the West, Steller's Jay is named after Arctic explorer Georg Wilhelm Steller, who discovered this bird on the Alaska coast in 1741. The darkest jay in North America, it has a black head and crest and a sooty black back and breast. The extent of black on the body is variable among local populations, as is the amount of blue or white striping on the head or throat.

• **SONG** Variety of calls, including harsh *shaack, shaack, shaack* and *shooka, shooka* notes; a mellow *klook klook klook*; and shrill hawklike vocalizations. Often mimics calls of other birds, including loons and hawks.

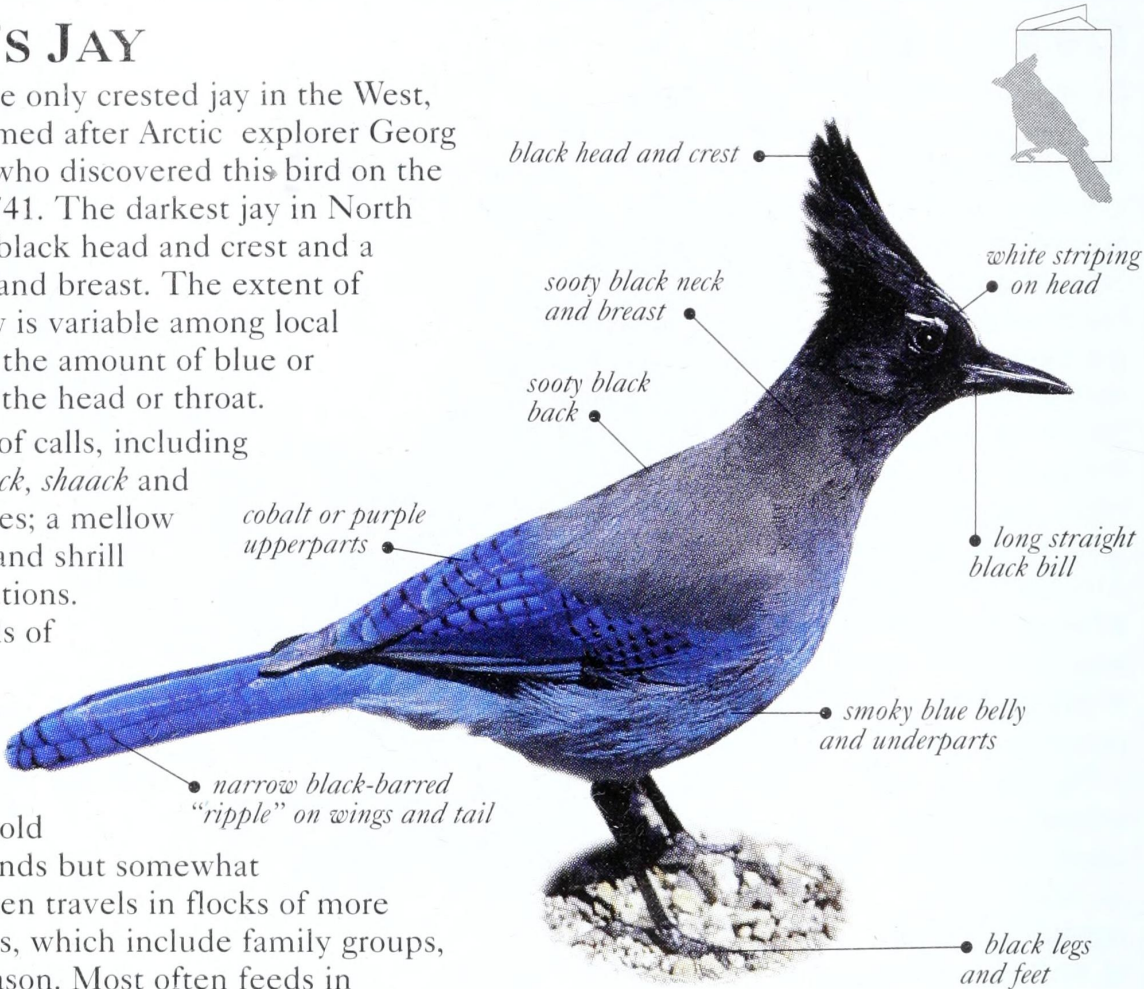
• **BEHAVIOR** Bold around campgrounds but somewhat shy in woods. Often travels in flocks of more than a dozen birds, which include family groups, after breeding season. Most often feeds in treetops and on ground. Omnivorous; eats wide variety of animal fare, including frogs, snakes, eggs and young of other birds, many kinds of insects, and carrion, but approximately 70 percent of annual diet (90–99 percent in winter) is comprised of pine seeds, acorns, and fruit. Caches seeds and acorns for winter larder.

• **BREEDING** This species is known to be monogamous. It is known as a solitary nester. Courtship feeding is done by the male Steller's Jay.

• **NESTING** Incubation 16–18 days mostly by female. Altricial young remain in nest 17–21 days. Fed by both sexes. 1 brood per year.

• **POPULATION** Steller's Jay is common in pine-oak and coniferous woodlands. Its population is both stable and increasing. Casual at lower elevations during the winter season. Accidental in the East.

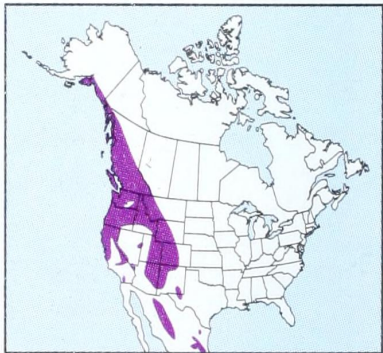
• **FEEDERS** In winter family groups often frequent feeders.



Similar Birds



BLUE JAY
Purple-gray crest and back; grayish white underparts; black collar extends around body from breast to nape; white spots, bars, and patches in wings and tail; blue wings and tail with fine black barring.



Flight Pattern	
Direct flight with steady buoyant wing beats. Often glides between perches in or among trees, or from tree to ground.	

Nest Identification	
Shape	Location

Cemented with mud • includes pine needles, twigs, dry leaves, roots, and grass • on horizontal limb near trunk or in crotch of conifer; occasionally in deciduous tree; 8–100 feet above ground • built by both sexes • 2–6, but most often 4, pale greenish blue or bluish green eggs with brown markings; subelliptical to short subelliptical, 1.2 x 0.9 inches.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 4.5 ounces
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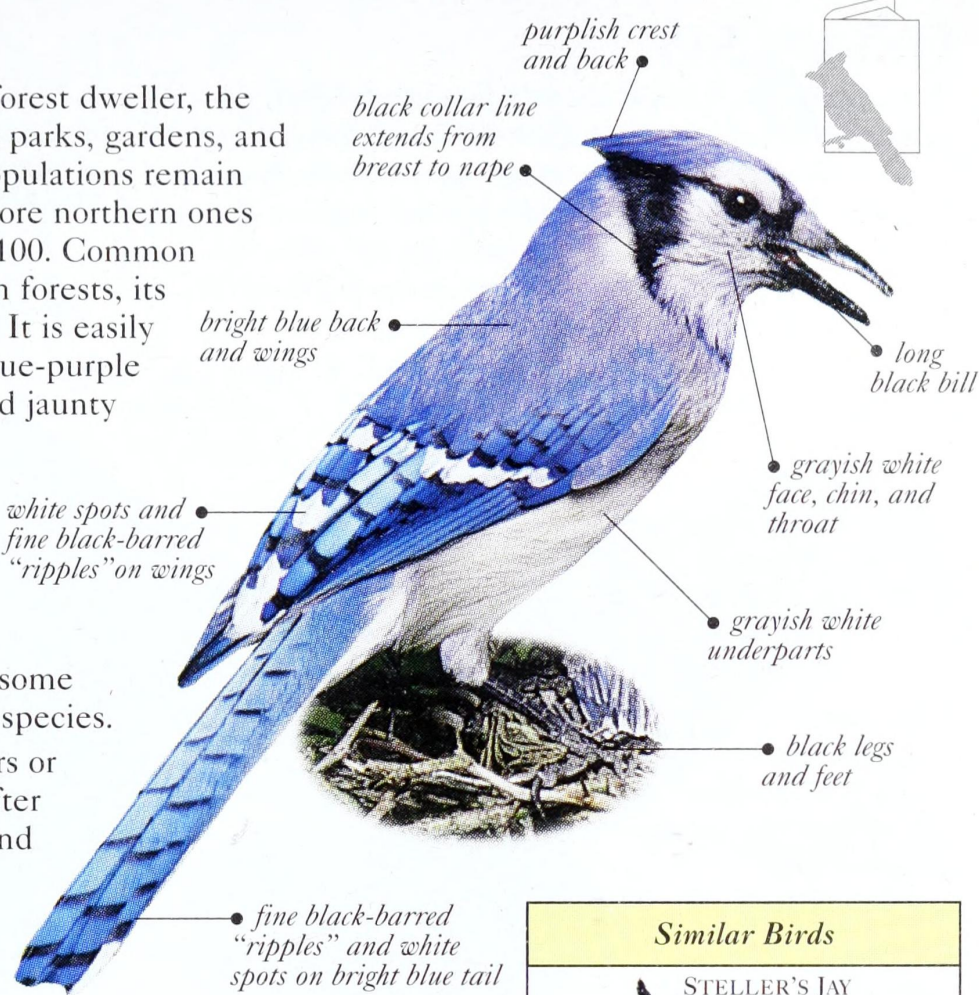
DATE _____ TIME _____ LOCATION _____

Family CORVIDAE	Species <i>Cyanocitta cristata</i>	Length 11 inches	Wingspan 16 inches
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BLUE JAY

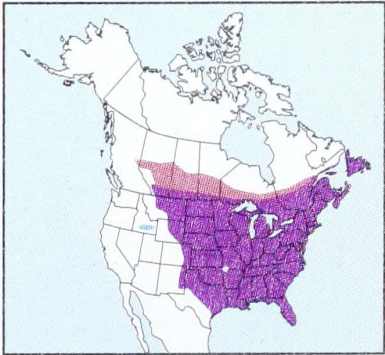
Once considered primarily a forest dweller, the Blue Jay has adapted to cities, parks, gardens, and forest fragmentation. Some populations remain in locales year-round, while more northern ones migrate south in flocks of 50–100. Common despite clear-cutting in eastern forests, its range is expanding northwest. It is easily recognized by its large size; blue-purple upperparts, wings, and tail; and jaunty bluish purple crest.

- **SONG** Sharp penetrating *jay jay jay* or *thief, thief, thief!* Also musical *weedle-weedle*, like the squeaking of a farm pump that needs oil. Variety of other vocalizations, some musical; mimics several hawk species.
- **BEHAVIOR** Usually in pairs or flocks; especially gregarious after nesting season. Lives in oak and beech trees. Noisy; shrieks alone or in groups at cats, snakes, owls, hawks, and hunters. Omnivorous, but over 70 percent of diet is plant matter, especially acorns, pine seeds, corn, fruits, and berries. Animal fare includes insects, carrion, eggs and young of other birds, snails, fish, frogs, small reptiles, and small mammals. Stores acorns in the ground for winter, a major factor in establishing and distributing oak forests, as many seeds are not found and thus germinate.
- **BREEDING** Monogamous. Solitary nester. Male feeds during courtship. May keep several mates for several years.
- **NESTING** Incubation 16–18 days by both sexes but most often by female. Altricial young stay in nest 17–21 days; brooded by female; fed by both sexes. 1 brood per year in the North, 2–3 in the South.
- **POPULATION** Common and widespread in woodlands and residential areas with big shade trees. Casual in the Northwest in autumn and winter.



Similar Birds

- **STELLER'S JAY** Black crest; smoky black back, neck, and breast; cobalt blue upperparts; no white spots in wings or tail.
- **WESTERN SCRUB-JAY** Lacks crest; lacks white spotting on wings and tail; lacks black collar; grayish underparts contrast with gray-streaked white throat
- **Florida Scrub-Jay** restricted to Florida.



Flight Pattern

Direct flight with steady, buoyant wing beats. Often glides between perches within or between trees, or to ground.

Nest Identification

Shape

Location

Twigs, bark, moss, lichens, grass, and sometimes paper and string • built by both sexes • on horizontal branch near trunk or in crotch or vines 5–20 feet above ground; sometimes up to 50 feet • 3–7 pale greenish blue or bluish green eggs with dark brown markings; subelliptical, 1.1 x 0.85 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 3.0 ounces
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DATE _____ TIME _____ LOCATION _____

Family CORVIDAE	Species <i>Cyanocorax yncas</i>	Length 10.5 inches	Wingspan 15 inches
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GREEN JAY

Also known as the Rio Grande Jay, this brightly colored tropical bird is restricted to southern Texas in the US, although it also ranges south through Mexico, Central America, and northern regions of South America. Look for it in thickets and dense riparian growth along the river in the lower Rio Grande Valley. Nonmigratory, the Green Jay rarely wanders far from its nesting sites but may travel in foraging flocks to nearby ranch country after nesting season. Its bright colors blend remarkably well with sun-dappled foliage, but once it has been seen this green bird with its blue-and-black head and bright yellow outer tail feathers is unmistakable.

• **SONG** Dry harsh series of *cheh-cheh-cheh* notes; loud ringing *chink, chink, chink*; and froglike croaking of *ahrrrrrrrrrr*.

• **BEHAVIOR** Gregarious and noisy. Inquisitive. In pairs and small family groups; family groups of 4–9 remain on permanent territories. Inhabits heavily wooded areas and thickets. May occasionally forage in open country after nesting season; generally forages at low to middle levels. Omnivorous; eats insects, spiders, small vertebrates (including eggs and young of other birds), fruits, berries, and seeds of grass, weeds, and trees.

• **BREEDING** Monogamous. Solitary nester; cooperative breeder with helpers at nest. Only 1 pair in each flock breeds.

• **NESTING** Incubation 17–18 days by female. Altricial young stay in nest 19–22 days. Brooded by both sexes. Fed by both sexes and helpers. 1 brood per year.

• **POPULATION** Common in restricted US range. Stable. Range expanding west and northwest.

• **FEEDERS** Suet, corn, nuts, and sunflower seeds.

• **CONSERVATION** Small US population is vulnerable to loss of riparian habitat due to human development and agriculture.

Flight Pattern



Direct flight with steady buoyant wing beats. Glides between perches within trees, between trees, or from tree to ground.

Nest Identification

Shape 	Location  
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Large platform supports cup of thorny twigs • lined with leaves, roots, vines, moss, and grass • in deciduous trees or shrubs 5–30 feet above ground • built by both sexes and sometimes other birds • 3–5, most often 4, grayish white, green-white, or buff eggs with brown, gray, and lavender markings; oval to short oval, 1.1 x 0.8 inches.



Similar Birds

None in North American range.



Plumage Sexes similar	Habitat   	Migration Nonmigratory	Weight 2.7 ounces
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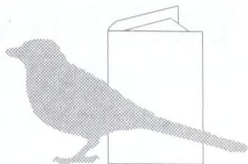
DATE _____ TIME _____ LOCATION _____

Family CORVIDAE	Species <i>Cyanocorax morio</i>	Length 15–17 inches	Wingspan 30 inches
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BROWN JAY

Large and noisy with a long graduated tail and short brushy crest, the Brown Jay is considered a cooperative bird and is often observed helping other parents and guarding their young. A young Brown Jay can be distinguished by its yellow bill and eye rings. In the US the species is restricted to the lower Rio Grande Valley of Texas in the vicinity of Falcon Dam, but in Mexico and Central America the Brown Jay is widespread and fairly common.

- **SONG** Harsh nasal call of *jay! jay! jay!* or *kyeeeah, kyeeeah, kyeeeah!* is similar to a Blue Jay or Red-shouldered Hawk but louder. Also makes steadily repeated soft mewing.
- **BEHAVIOR** Noisy and gregarious. Forms flocks of 6–15 birds composed mostly of



family members in which 1 monogamous pair may nest with young fed by several members of flock, or several females may lay eggs in a communal nest with young fed by helpers. New flocks are formed by young birds splitting off from original flock. Omnivorous; eats wide variety of insects, small vertebrates, eggs, seeds, nuts, fruits, and berries. Feeds from low to high and sometimes on ground.

- **BREEDING** Monogamous. Solitary nester but sometimes communal; cooperative with helpers at nest.
- **NESTING** Incubation 18–20 days by female and other birds. Altricial young stay in nest 22–31 days. Fed by both parents and other adult birds. 1–2 broods per year.
- **POPULATION** Uncommon to rare and local in lower Rio Grande Valley of southern Texas.

Flight Pattern

Steady buoyant, somewhat bouncy wing beats. Glides between perches among trees, and from trees to ground.

Nest Identification

Shape

Location

- **FEEDERS** Fruit, nuts, sunflower seeds, and suet.
- **CONSERVATION** Vulnerable to loss of riparian woodland habitat due to human development and agriculture, particularly in the lower Rio Grande Valley.



Lined with twigs and other vegetation • on horizontal limb far from trunk 23–70 feet above ground • built by both sexes and other birds • 1–8 blue-gray eggs with brown markings; oval, 1.3 x 0.9 inches.

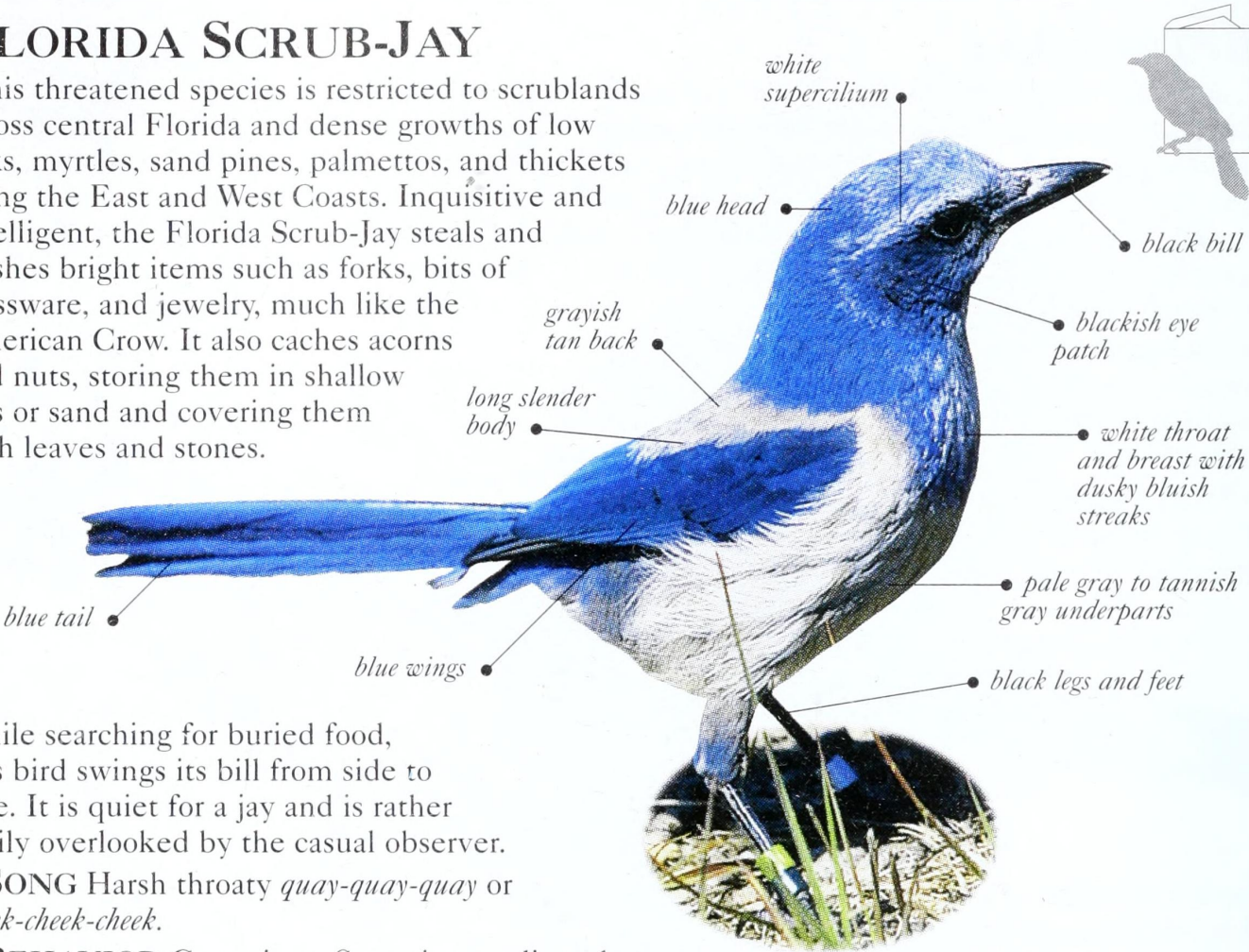
Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 7.2 ounces
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DATE _____ TIME _____ LOCATION _____

Family CORVIDAE	Species <i>Aphelocoma coerulescens</i>	Length 11 inches	Wingspan 16 inches
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FLORIDA SCRUB-JAY

This threatened species is restricted to scrublands across central Florida and dense growths of low oaks, myrtles, sand pines, palmettos, and thickets along the East and West Coasts. Inquisitive and intelligent, the Florida Scrub-Jay steals and stashes bright items such as forks, bits of glassware, and jewelry, much like the American Crow. It also caches acorns and nuts, storing them in shallow pits or sand and covering them with leaves and stones.



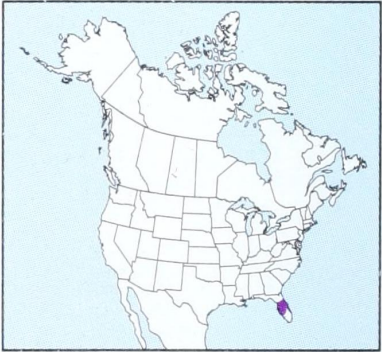
While searching for buried food, this bird swings its bill from side to side. It is quiet for a jay and is rather easily overlooked by the casual observer.

- **SONG** Harsh throaty *quay-quay-quay* or *cheek-cheek-cheek*.
- **BEHAVIOR** Gregarious. Sometimes solitary but usually in small family groups. Hops on ground as it forages for food at low to middle levels in vegetation. Omnivorous; eats wide variety of mice, eggs and young of smaller birds, scorpions, turtles, mollusks, insects, spiders, ticks, and mites; also eats plant matter, including acorns, nuts, corn, and fruit. Tame in picnic areas and campgrounds; will pilfer food and take peanuts from human fingers or lips. Major disperser for oaks and pines.
- **BREEDING** Monogamous. Cooperative. Fledglings often remain in territory for several years to help care for nestlings.
- **NESTING** Incubation 15–17 days by female. Altricial young stay in nest 18–19 days. Fed by both sexes and other helper birds. 1 brood per year (rarely 2).
- **POPULATION** Uncommon. Declining and threatened; reduced by an estimated 90 percent during 20th century.

Similar Birds



BLUE JAY
Slightly larger, chunkier body; blue crest; black collar from breast to nape; blue back; bold white spots on wings and tail.



Flight Pattern



Direct flight with steady buoyant wing beats. Glides between perches within tree, between trees, and from tree to ground.

Nest Identification

Shape 

Location 

Bulky sticks • lined with roots, twigs, moss, grass, and hair • on horizontal branch or in crotch of low tree or bush 2–12 feet above ground • built by both sexes • 2–5 pale green eggs irregularly spotted with reddish brown; ovate to elongate ovate, 1.1 x 0.8 inches.

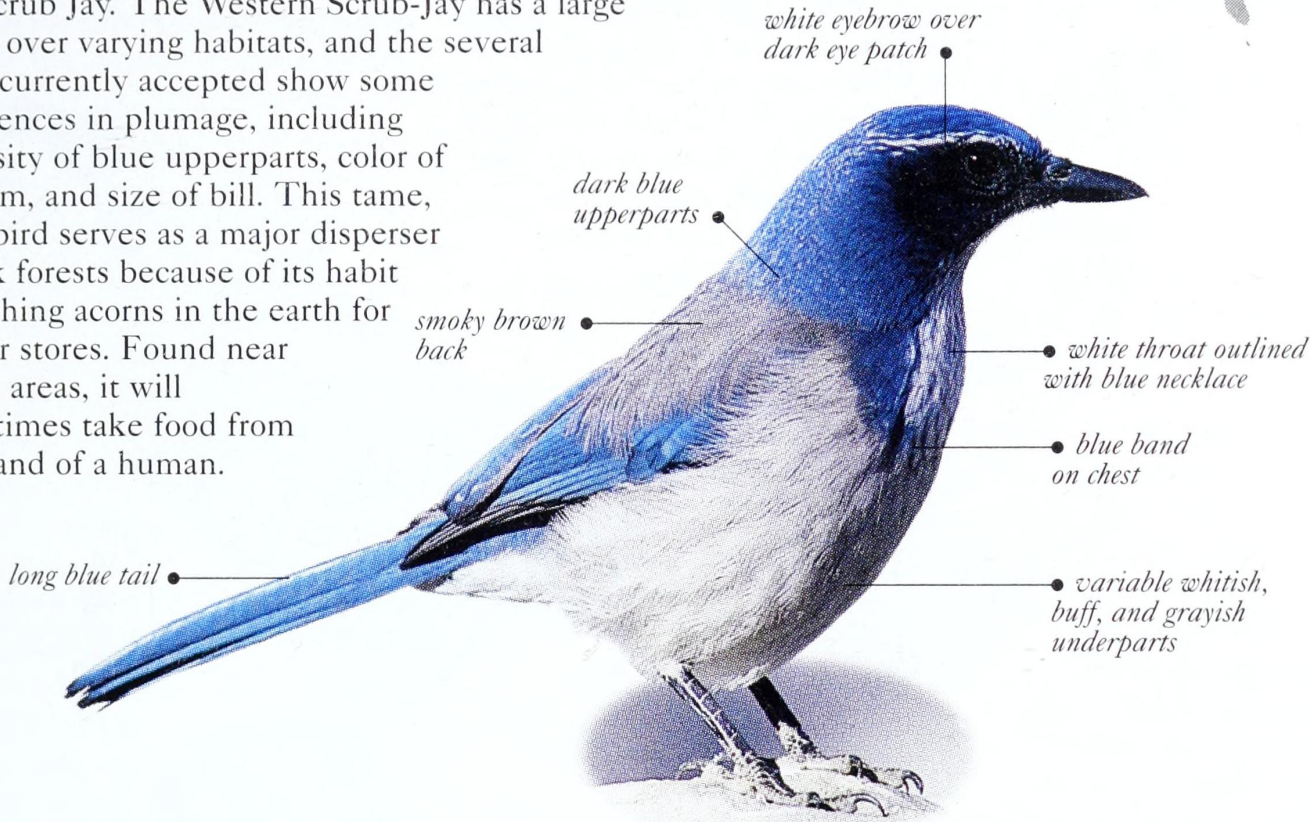
Plumage Sexes similar	Habitat 	Migration Nonmigratory	Weight 2.8 ounces
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DATE _____ TIME _____ LOCATION _____

Family CORVIDAE	Species <i>Aphelocoma californica</i>	Length 11 inches	Wingspan 16 inches
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WESTERN SCRUB-JAY

Until recently the Western, Island, and Florida Scrub-Jays were considered races of one species, the Scrub Jay. The Western Scrub-Jay has a large range over varying habitats, and the several races currently accepted show some differences in plumage, including intensity of blue upperparts, color of crissum, and size of bill. This tame, bold bird serves as a major disperser of oak forests because of its habit of caching acorns in the earth for winter stores. Found near urban areas, it will sometimes take food from the hand of a human.



- **SONG** Noisy. Call is a hoarse repeated *shreep* or *quay-quay-quay*.
- **BEHAVIOR** Often in pairs or small flocks. Perches in the open on trees, shrubs, or wires. Forages on ground and in trees for food. Eats insects, various grains, small lizards, frogs, various fruits, and eggs and young of other birds. Courting male hops around female with upright posture, head erect, and spread tail dragging the ground. Unlike the eastern Florida Scrub-Jay, pairs hold individual territories and have no helpers at the nest.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 15–17 days by female; male feeds female during incubation. Altricial young stay in nest 18–19 days, brooded by female, but fed by both sexes. 1 brood per year.

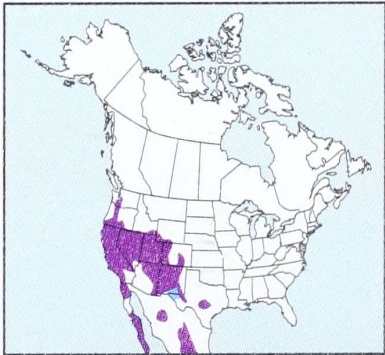
Flight Pattern	
Flies with steady buoyant wing beats. Glides between perches within trees, between trees, and from tree to ground.	

Nest Identification	
Shape	Location

- **POPULATION** Fairly common to common in scrub vegetation and in pine-oak-juniper woodlands.
- **FEEDERS** Attracted to feeder with nuts, sunflower seed, and fruit.

Twigs, grass, and moss, lined with finer rootlets and sometimes animal hair • in tree or shrub, 5–30 feet above ground • built by both sexes • 2–7 light green or gray eggs, with brown, reddish brown, or olive spots; oval to long oval, 1.1 x 0.8 inches.

Similar Birds	
	PINYON JAY Blue overall; white-streaked throat; short tail • western range.
	MEXICAN JAY Chunkier; lacks white supercilium; lacks white throat with blue necklace; grayer breast and throat without strong contrast between them • limited range in the Southwest.



Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 2.8 ounces
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DATE _____ TIME _____ LOCATION _____

Family CORVIDAE	Species <i>Nucifraga columbiana</i>	Length 12.5 inches	Wingspan 18 inches
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CLARK'S NUTCRACKER

Far from shy, this fearless bird can be seen chasing coyotes, barging into tents of campers, or flying toward the sound of an imitation owl call. It is named after Captain William Clark of the Lewis and Clark expedition. An avid forager, this bird gathers and stores its surplus pine nuts and seeds in caches in the ground by tens of thousands per year. They become its principal food from late winter to early summer, and those that germinate become important for the distribution of conifers. In flight the white tail with black central tail feathers and white secondary patch on the black wings contrast with the pale gray body. It resides in coniferous forests in the mountains between three- and thirteen-thousand feet near the timberline.

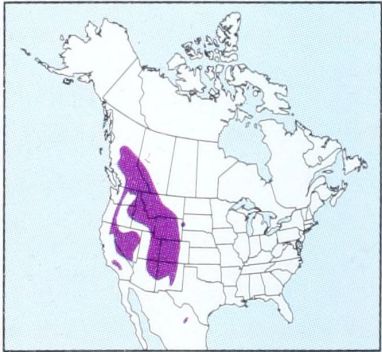
- **SONG** Noisy. Gives a very nasal rasping drawling dragged-out caw or *kra-a-a*.
- **BEHAVIOR** Gregarious; tame; curious. Eats insects and nuts, including the shell. Can carry 70–95 pine seeds at a time in sublingual pouch in mouth for winter cache. Sometimes invades human habitation, campgrounds, or picnic tables for scraps. Forages for food by walking or hopping on ground, or by pecking trees, woodpecker-style, for insects; may hawk flying insects like a flycatcher. Also takes bird eggs, nestlings, lizards, small mammals, and carrion. Can find thousands of buried seeds annually by memory.

- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 16–18 days by both sexes. Altricial young stay in nest 18–21 days. Brooded by female. Fed by both sexes. 1 brood per year.
- **POPULATION** Common. Fluctuates from year to year but remains stable. Eruptions to desert and lowlands every 10–20 years. Accidental in East.

Similar Birds



GRAY JAY
Slimmer; longer, uniformly gray tail; lacks white in wings; uniformly dark gray wings; black nape; short black bill.



Flight Pattern



Crowlike flight with slow steady deep deliberate wing beats. Sometimes alternates several rapid wing beats with long glides.

Nest Identification

Shape 

Location 

- **FEEDERS** Sunflower seeds.
- **CONSERVATION** Vulnerable to habitat loss due to logging operations in mountain coniferous forests.

Platform of small sticks and pieces of bark • lined with pine needles, leaves, and grass • on far end of horizontal branch of conifer 8–50 feet above ground • built by both sexes • 2–6 pale green or gray-green eggs marked with brown, olive, or gray; long oval pointed at small end; vary from ovate to elliptical ovate, 1.3 inches long.

Plumage Sexes similar	Habitat   	Migration Nonmigratory	Weight 5.0 ounces
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DATE _____ TIME _____ LOCATION _____

Family CORVIDAE	Species <i>Pica hudsonia</i>	Length 17.5–22 inches	Wingspan 24 inches
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BLACK-BILLED MAGPIE

The Black-billed Magpie is one of four songbirds that has a tail more than half the length of its body; one other is a magpie and two are flycatchers. As part of courtship, the male and female build large intricate structures for their nest, which they use year after year, producing a mud-based domed structure of sticks with a side entrance that may be two to four feet high. Other birds often seek shelter from storms in used magpie nests or nest in them themselves. In flight this bird appears black and white with large flashing white patches in the short rounded wings and a long dark green tail trailing behind.

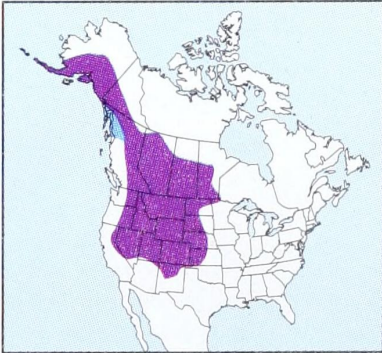
- **SONG** Noisy. Call is plaintive nasal *mag*. Also utters bold raspy repetitive *chuck-chuck-chuck* and has melodic whistle.
- **BEHAVIOR** Gregarious. Travels in family flocks of 6–10 birds; in winter joins flocks of up to 50 or more birds. Forages for food on ground, walking or hopping. Eats insects, larvae, and carrion. Also picks ticks off backs of elk, deer, and livestock. Caches food when plentiful. Frequents open country with brushy thickets and scattered trees, especially riparian groves. Roosts communally.
- **BREEDING** Monogamous. Small colonies. Pairs may stay together all year and form long-term bonds.
- **NESTING** Incubation 16–21 days by female. Altricial young brooded by female but fed by both sexes. First flight at 25–32 days. 1 brood per year.
- **POPULATION** Common and widespread in rangeland and scrubland with open woodlands and thickets, especially near water.



Similar Birds



YELLOW-BILLED MAGPIE
Yellow bill; yellow patch of bare skin below or around eye; smaller
• western range, but Black-billed may casually wander into Yellow-billed's range.



Flight Pattern

Direct flight with slow, steady deliberate somewhat shallow wing beats. Often glides between perches or from perch to ground.

Nest Identification

Shape

Location

Casual in the East and the Southwest in winter. Some eastern birds may be escapees.

- **CONSERVATION** Thousands have been killed by accidentally ingesting poisoned bait intended for predators in rangeland.

2–4-foot-high outside platform and roof made of sticks, mud, and thorny material
• inside cup made of stems, rootlets, and horsehair • on limb of tree or shrub, typically no more than 25 feet above ground but up to 50 feet • built by female with materials brought by male • 7–13 greenish gray eggs marked with browns; usually subelliptical but sometimes long oval, 1.3 inches long.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 6.6 ounces
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DATE _____ TIME _____ LOCATION _____

Family CORVIDAE	Species <i>Corvus monedula</i>	Length 13 inches	Wingspan 17.5 inches
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EURASIAN JACKDAW

Since 1983 this active Eurasian bird has been making its way as a casual visitor to southeastern Canada and the northeastern United States. For a period of time, a pair even nested in Pennsylvania; however, the species has been unable to survive there and the small population is almost gone. It is believed that most, if not all, of the little corvids were ship-assisted in making the Atlantic crossing to North America. Its smaller size, gray ear patches and nape, and light gray eyes set it apart from other crows in the Northeast.

• **SONG** Calls include a soft *chack* and a grating clipped metallic *kow* or *kyow*. Often repeats calls several times.

• **BEHAVIOR** Gregarious.

In pairs or small groups. Joins other corvids in foraging and often uses communal roosts. Hops or walks on ground with quicker jerkier gait than most other crows. Hops on branches in trees. Forages in open and cultivated country. Omnivorous, eating seeds, fruits, berries, large insects, small reptiles, amphibians, small rodents, and eggs and nestlings of other birds. Unusual among corvids, it nests in holes in trees, rocks, buildings, pipes, cliffs, and even rabbit burrows. Nomadic.

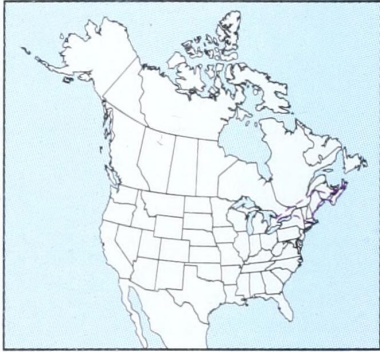
• **BREEDING** Monogamous. Solitary or colonial.

• **NESTING** Incubation 18–19 days by female. Young altricial; brooded by female; stay in nest 30–35 days, fed by both sexes. 1 brood per year.



Similar Birds

No other black bird, and especially no other corvid in North America, has the combination of light eyes and gray nape and earpatches.



• **POPULATION** Accidental to casual in southeastern Canada from Ontario to Nova Scotia and to northeastern US from Pennsylvania to New England.

• **FEEDERS** Will come to feeders for sunflower seed, bread, and suet.

Flight Pattern

Flies with somewhat jerky buoyant wing beats. Glides between perches within trees, between trees, and from perch to ground.

Nest Identification

Shape

Location

Twigs and grasses, lined with finer grasses and wool • in tree holes, ridges of cliffs, burrows, under roofs, crevices, pipes, etc. • built by both sexes • 4–6 light bluish green or buff eggs, with fine dots of brown; oval to long oval, 1.4 x 1.0 inches.

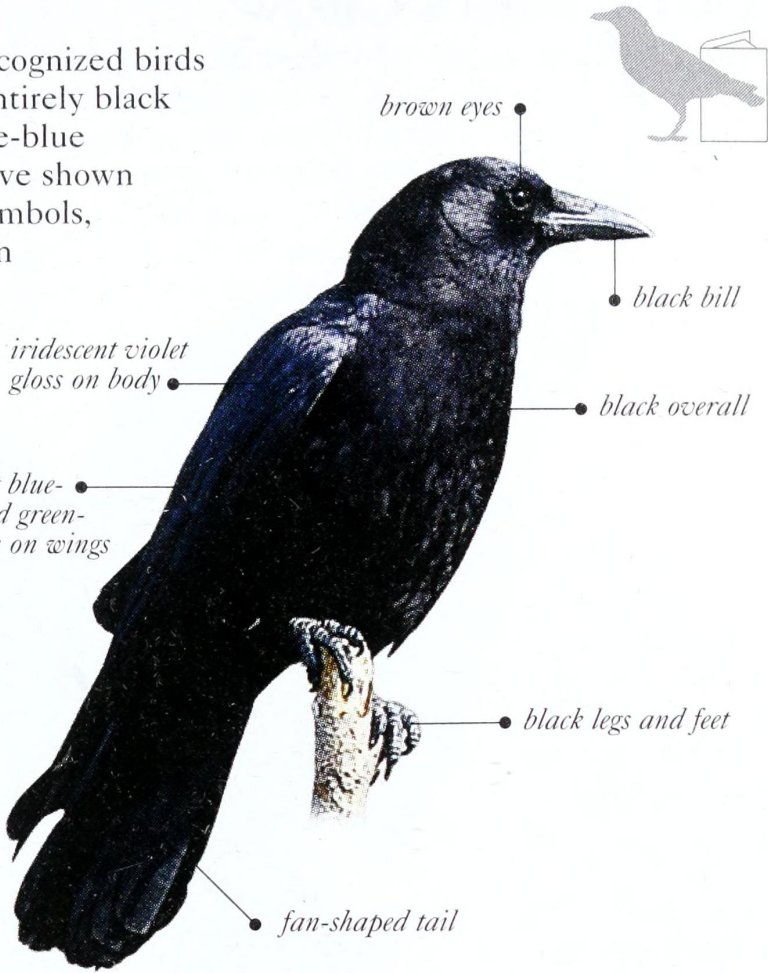
Plumage Sexes similar	Habitat	Migration Northern birds migrate	Weight 8.6 ounces
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Family CORVIDAE	Species <i>Corvus brachyrhynchos</i>	Length 17.5 inches	Wingspan 33–40 inches
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AMERICAN CROW

One of the most widely distributed and recognized birds in North America, the American Crow is entirely black from beak to toe to tail with a glossy purple-blue sheen. Studies of these intelligent birds have shown that they can count, solve puzzles, learn symbols, and retain information. They often are seen chasing and mobbing owls and hawks. Huge flocks from a few hundred to as many as 200,000 birds may assemble in winter to roost, travel, and feed together. Often persecuted, shot, poisoned, and even bombed on its roost in the past, this crow still lives among us by its intelligence and adaptability and is common throughout its range.

- **SONG** Familiar loud call of *caw-caw* with many variations. Nasal begging call like *uh-uah* of the Fish Crow.
- **BEHAVIOR** Gregarious. Omnivorous; eats insects, many other small invertebrates from millipedes to snails, small amphibians, small reptiles, small mammals, eggs and young of other birds, waste corn and other grains, fruits, field crops, garbage, and carrion. Mobs avian predators, calling gangs of crows together to harass a large hawk or owl on a perch or drive it out of the area. Catches up to a soaring hawk and repeatedly dives on it from above, often forcing it down into the shelter of trees below. Breaks mollusk shells by dropping them on rocks from above.
- **BREEDING** Monogamous. Solitary nester. Sometimes known to be cooperative.
- **NESTING** Incubation 18 days by both sexes. Altricial young stay in nest 28–35 days. Brooded by female. Fed by both sexes and extra birds. 1 brood per year, 2 in the South.



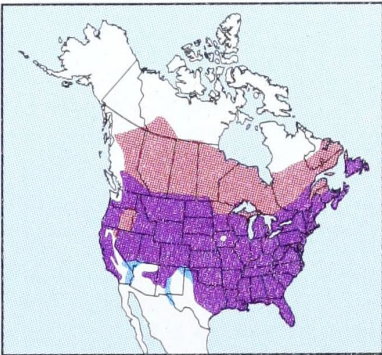
Similar Birds



COMMON RAVEN
Larger; heavier stout bill; shaggy throat feathers; wedge-shaped tail; different voice.



FISH CROW
Smaller; more pointed wings; proportionally smaller more slender bill and longer tail; nasal, higher-pitched call
• eastern range.



Flight Pattern

Slow steady deliberate direct flight with deep wing beats. Glides with slight dihedral from altitude to perch or ground, between perches, and from perch to ground.

- **POPULATION** Abundant. Adapting as habitat developed by humans.
- **CONSERVATION** Widely persecuted in the past by farmers and hunters. Still legally hunted for sport in many states.

Nest Identification

Shape

Location

Made of twigs and branches • lined with tree material, grass, feathers, moss, leaves, and hair • in fork of tree or shrub or cross arms of utility pole 0–100 feet above ground; sometimes on ground in prairie • built by both sexes and sometimes extra birds • 3–7 bluish green to olive-green eggs marked with brown and gray; oval, 1.6 x 1.1 inches.

Plumage Sexes similar	Habitat	Migration Some migrate	Weight 1.0 pound
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DATE _____ TIME _____ LOCATION _____

Family CORVIDAE	Species <i>Corvus imparatus</i>	Length 14–15 inches	Wingspan 25–28 inches
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TAMAULIPAS CROW

Historically an endemic of northeastern Mexico, this species has settled in the winter in the Lower Rio Grande Valley of Texas, especially near the city of Brownsville, where the species has been recorded since 1968. Once called the Mexican Crow, this gregarious small-bodied bird is highly adaptable. The most dependable place to see the bird in Texas has been the municipal dump in Brownsville. It is the smallest crow that has nested in the US, and it is possible to mistake it for a Great-tailed Grackle, but in flight note that this crow's tail is short and squared.

• **SONG** Utters a throaty *caw* or *khurr*, or sometimes a shrieking *creow*. Also has a low guttural croaking similar to the croaking of a frog.

• **BEHAVIOR**

Solitary or in pairs or flocks; gregarious after breeding season. Eats insects, grains, carrion, refuse, eggs and young of other birds, and some fruits. Walks and hops on ground as it forages for food. Frequents open and semiopen areas with trees, brush, and thickets. Often found scavenging around towns, garbage dumps, and in agricultural areas. Often in large foraging flocks after the breeding season; roosts in communal roosts.

• **BREEDING** Monogamous. Colonial.

• **NESTING** Incubation 17–18 days by female. Young altricial; stay in nest 30–35 days, brooded by female and fed by both sexes. 1 brood per year.

• **POPULATION** Uncommon to fairly common and local. Some declines have occurred in southern Texas in recent years. Common to fairly common in northeastern Mexico. Adaptable to habitat changes.



Similar Birds



GREAT-TAILED GRACKLE ♂
Whitish yellow eyes; longer, keel-shaped tail; glossy black overall with purplish sheen.



CHIHUAHUAN RAVEN
Larger; heavy bill; wedge-shaped tail; croaking voice; plumage not glossy.



Flight Pattern	
Rapid direct flight on steadily beating wings. Glides from altitude to perch; glides between perches and from perch to ground.	

Nest Identification	
Shape	Location

Sticks and plant fibers, lined with softer materials • in fork of tree • built by both sexes • 4–5 pale blue to blue-gray eggs, with brown or olive-buff streaks; subelliptical to long oval, 1.1 inches long.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight Undetermined
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DATE _____ TIME _____ LOCATION _____

Family CORVIDAE	Species <i>Corvus ossifragus</i>	Length 15 inches	Wingspan 30–40 inches
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FISH CROW

An active scavenger, the Fish Crow frequently harasses gulls and terns in attempts to force them to surrender their prey. It also raids the unguarded nests of other birds, particularly shorebirds, egrets and herons, or turtles, flying away with their eggs in its bill. In the winter, sometimes thousands of these crows can be seen roosting together. Smaller than the similar American Crow, the Fish Crow is never far away from water, living along the coast and penetrating inland mainly along major rivers. Although primarily nonmigratory, birds in the northwestern part of the range are migratory inland.

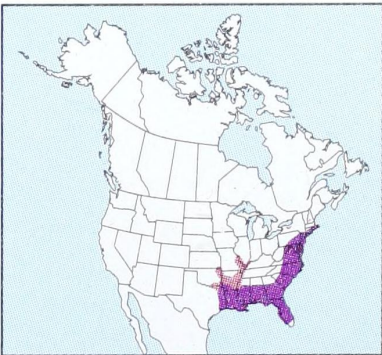
- **SONG** Call is a high-pitched nasal *ca-hah* or *aw-uk*.
- **BEHAVIOR** Gregarious and sociable. Will feed inland but usually feeds in shallow waters along coastline and salt marshes. Omnivorous. Sometimes a major nest predator at heronries. Eats a wide variety of crustaceans, carrion, eggs of other birds, insects and insect larvae, fish, ticks from livestock, various berries, and some fruits. Drops mollusks from the air to break them on rocks, highways, wharves, etc. Often hovers over water or land, searching for prey before dropping down to grab it.
- **BREEDING** Monogamous. Small colonies.
- **NESTING** Incubation 16–18 days by both sexes. Young



Similar Birds



AMERICAN CROW
Slightly larger; larger bill; proportionally larger head; shorter tail; call is a lower clearer *caw*.



Flight Pattern

Flies with somewhat stiff wing beats, alternating several quick wing strokes with long glides. Hovers when foraging.

Nest Identification

Shape	Location
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Dried twigs with lining of bark chips, pine needles, feathers, horse and cattle hair, and soft grasses • set fairly high in fork of shrub or topmost crotch of deciduous tree or conifer, 6–90 feet above ground • built by both sexes • 4–5 bluish or grayish green eggs marked with brown and gray spots; oval, 1.5 inches long.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 10.6 ounces
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DATE _____ TIME _____ LOCATION _____

Family CORVIDAE	Species <i>Corvus cryptoleucus</i>	Length 19.5 inches	Wingspan 38 inches
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CHIHUAHUAN RAVEN

Sometimes called the White-necked Raven, this bird has white bases on the back of the neck and lower throat feathers that show only when ruffled by the wind or when the bird becomes agitated. Highly adventuresome, these birds sometimes dive into rotating air masses or dust devils and allow themselves to be taken for an upward ride. A small raven of arid grasslands, scrublands, and desert, it uses the endless strings of utility poles crossing the barren landscapes it inhabits as lookout stations, resting places, and nesting locations, placing nests high on the cross-arms of the poles.

- **SONG** Call is drawling *crooaak*. Utters guttural *quark, quark* as a warning call.
- **BEHAVIOR** Gregarious. Active forager and scavenger. Eats wide variety of insects, insect larvae, spiders, worms, snails, earthworms, small mammals, lizards, eggs and young of other birds, carrion, grains, nuts, corn, cactus fruit, and scraps of human food. Breeds late in season, timing nesting with food availability. Forms flocks soon after nesting season that may become enormous, numbering in the thousands before winter. Male ruffles neck feathers in courtship display and engages in acrobatic aerial display for female. Then male and female sit next to each other and rub bills, bow to one another, and raise wings.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 18–21 days by both sexes. Altricial young stay in nest 30 days. Brooded by female. Fed by both sexes. 1 brood per year.
- **POPULATION** Common to fairly common in arid to semiarid grassland, rangeland, and desert.



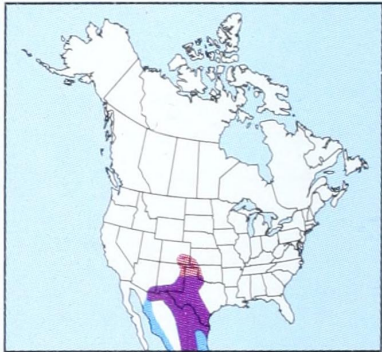
Similar Birds



COMMON RAVEN
Larger; heavier bill; longer tail; pale gray bases on upper neck and throat feathers.



AMERICAN CROW
Smaller; smaller bill; fan-shaped tail; dark gray bases on neck and throat feathers; different call.



Flight Pattern



Alternates between several deep wing beats and short to long glides; glides from altitude to ground or perch. Soars effortlessly on thermals and updrafts.

Nest Identification

Shape   Location   

- **CONSERVATION** Formerly highly persecuted by ranchers and farmers who considered them pests or threats to livestock; they were systematically shot and poisoned by the thousands in control programs.

Prickly sticks and sometimes barbed wire • lined with bark chips, grass, hair, and bits of refuse • in fork of tree or shrub 9–40 feet above ground; sometimes on man-made structures such as windmills or utility poles • built by female • 3–8 pale or grayish green eggs with lilac and brown markings; subelliptical to long oval, 1.8 x 1.3 inches.

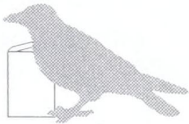
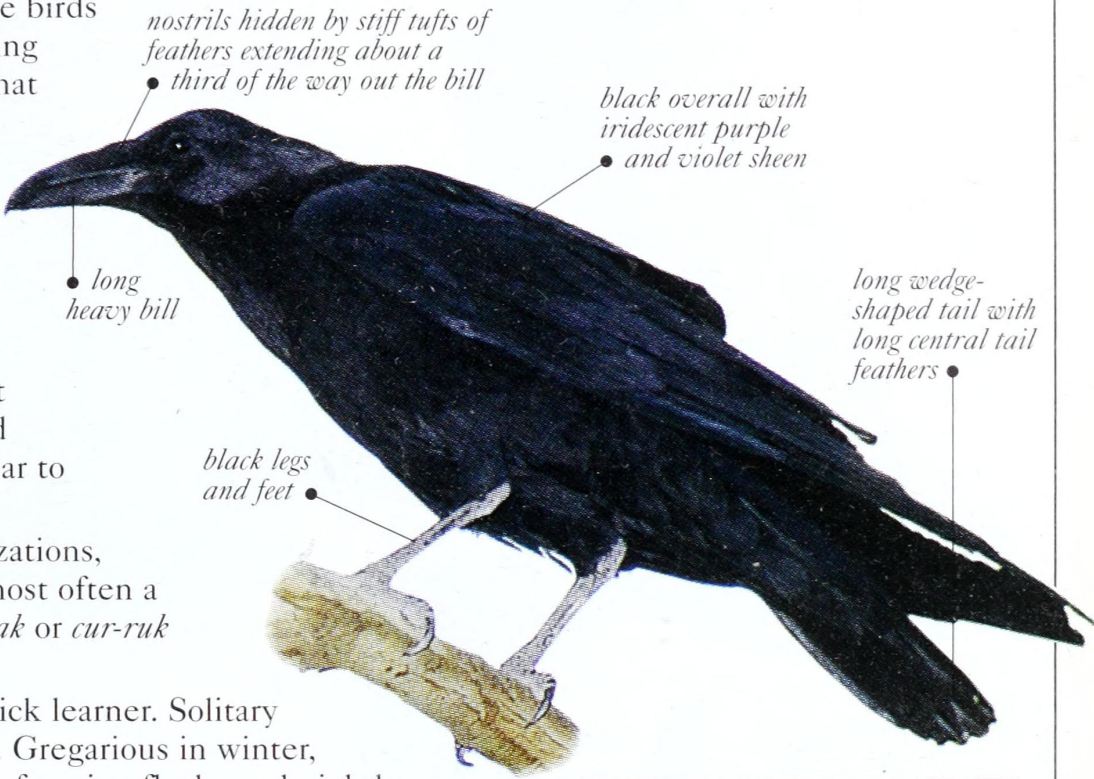
Plumage Sexes similar	Habitat   	Migration Most do not migrate	Weight 1.2 pounds
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Family CORVIDAE	Species <i>Corvus corax</i>	Length 24–26 inches	Wingspan 46–56 inches
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COMMON RAVEN

This magnificent flier is the aerial equal of hawks and falcons and is the largest passerine, or perching bird, in North America. If any bird truly enjoys flying to the point of playing in the air, it must be this raven. Intelligent resourceful hunters and scavengers, groups of these birds have been observed working together to capture prey that is too large for one bird to conquer. It is a revered totem and spirit to many Native Americans. Adults are glossy black overall, with a huge “Roman nose,” and shaggy throat feathers that can be elevated or sleeked down. The female is similar to the male but smaller.

- **SONG** Variety of vocalizations, some quite musical, but most often a croaking drawling *croooooak* or *cur-ruk* or metallic *tok*.
- **BEHAVIOR** Tame. Quick learner. Solitary or in pairs or small groups. Gregarious in winter, when it may occur in large foraging flocks and nightly communal roosts. Active forager, scavenger, and hunter. Omnivorous; eats wide variety of small invertebrates, from tadpoles and shellfish to worms and insects. Also takes many small vertebrates, including minnows, eggs and young of other birds, and rodents, as well as carrion and refuse. Elaborate courtship flight with great display of acrobatics and pair flying, male above female, wing-tip to wing-tip and heads touching.
- **BREEDING** Monogamous. Solitary; small, loose colonies in the North. Mates for life.
- **NESTING** Incubation 18–21 days by female. Altricial young stay in nest 38–44 days. Brooded by female. Fed by both sexes. 1 brood per year.



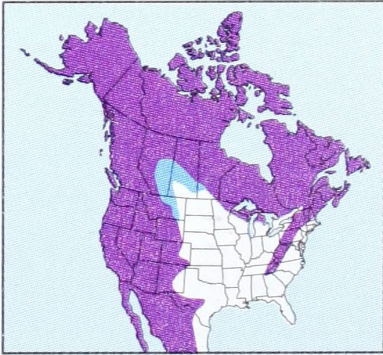
Similar Birds



AMERICAN CROW
Smaller; smaller bill; lacks shaggy throat feathers; fan-shaped tail; different call.



CHIHUAHUAN RAVEN
Smaller; shorter bill and wings; nasal bristles extend farther out on culmen; white-based neck and throat feathers.



Flight Pattern



Strong flight, often rising in circles. Alternates deep wing beats with long glides or soaring on flat wings like a hawk. Soars on thermals and updrafts.

Nest Identification

Shape

Location



- **POPULATION** Common. Expanding in California; also in Appalachians into areas where birds had been extirpated.
- **CONSERVATION** In past was shot, trapped, and poisoned for alleged damage to wild game and domesticated animals.

Branches and sticks on outside; cup made of small sticks • lined with bark chips, animal hair, sheep’s wool, lichens, moss, seaweed, and grass • on cliff near water, in mountains, or in fork of tree 45–80 feet above ground • built by both sexes • 3–7 greenish or gray-green eggs with brown or olive spots; subelliptical to long oval, 2 x 1.4 inches.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 2.7 pounds
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DATE _____ TIME _____ LOCATION _____

Family ALAUDIDAE	Species <i>Eremophila alpestris</i>	Length 7–8 inches	Wingspan 12.5–14 inches
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HORNED LARK

The Horned Lark is one of the most widespread songbirds in North America. The spectacular display flight of the male bird begins with an ascending flight as high as 800 feet. Singing, he then circles, closes his wings, and drops headfirst almost to the ground, where he opens his wings at the last second. He then struts around the female with his wings drooped and horns erect. The female appears similar to the male but is duller in color and lacks the black crown. In flight note the white underparts, including the wings and wing linings, the black tail with white outer tail feathers, and black legs and feet.



- **SONG** Given from ground or in high, circling flight. Sings series of bell-like, tinkling notes *pit-wit*, *wee-pit*, *pit-wee*. Call is *tsee-tete* or *zeet*.
- **BEHAVIOR** Pairs; gregarious in winter, forming large flocks sometimes mixed with Snow Buntings and longspurs. Walks and runs rather than hops. Forages on ground, often in open fields with bare soil, pebbles, or short, sparse vegetation. Eats mostly seeds, grains, insects, and small mollusks. Often found in agricultural areas, to which it has adapted for nesting and foraging, on country roadways and farm roads standing and walking on pavement or gravel. This bird nests as early as February in the South. In courtship males perform display flights and skylark.
- **BREEDING** Monogamous. Solitary to gregarious.
- **NESTING** Incubation 11–12 days by female. Altricial young stay in nest 9–12 days. Brooded by female. Fed by both sexes. 1 brood per year in the North, 2 in the South.

Flight Pattern

After each wing beat folds wing feathers close to body.

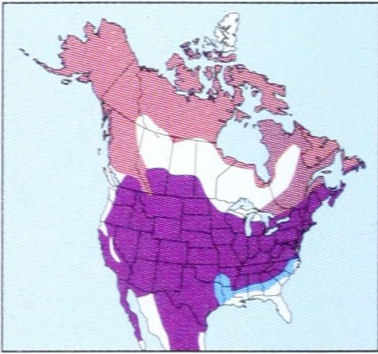
Nest Identification

Shape Location

Grass • lined with feathers and soft materials • in shallow depression, natural or dug by female, often near clumps of dirt or animal manure • built by female • 2–5 gray or greenish eggs dotted with browns; subelliptical, 0.8 x 0.6 inches.

Similar Birds

AMERICAN PIPIT
Gray upperparts; brown-streaked whitish underparts; dark grayish brown tail with white outer tail feathers; bobs tail continuously; lacks horns, face pattern, and black bib • cinnamon-buff underparts in summer.



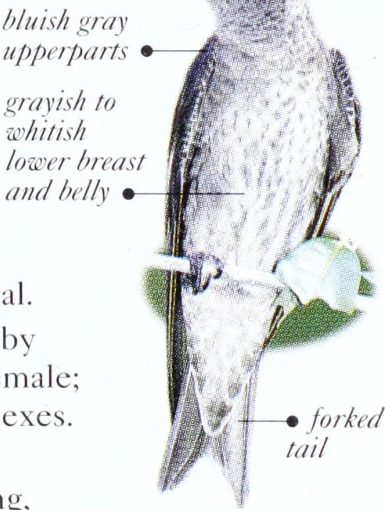
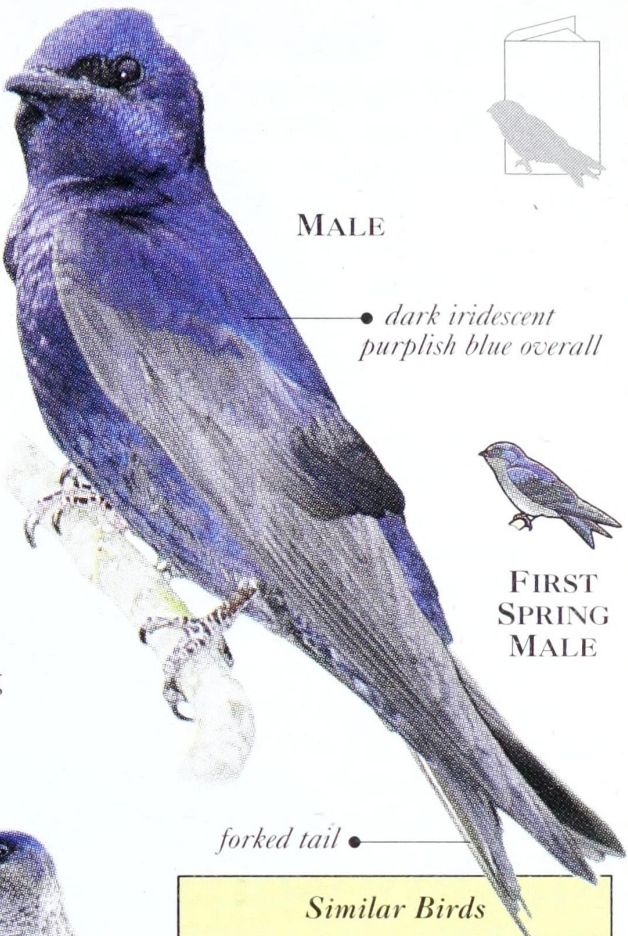
Plumage Sexes differ	Habitat	Migration Migratory	Weight 1.1 ounces
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Family HIRUNDINIDAE	Species <i>Progne subis</i>	Length 7.25–8.5 inches	Wingspan 15.5–16.75 inches
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PURPLE MARTIN

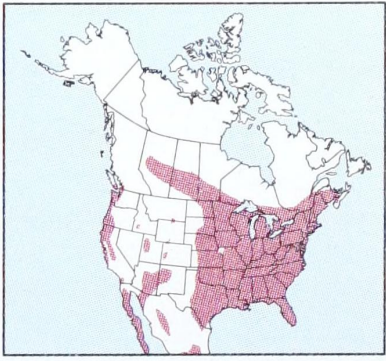
Colonies once nested in holes in tall dead trees and saguaro cacti. Today the largest North American swallow usually nests in man-made multidwelling martin houses, sometimes with hundreds of pairs nesting together. Martin houses were inspired by the Native American custom of placing empty gourds on tall poles to attract the Purple Martin for aesthetic reasons and to reduce the insect population around villages and crops. Juvenile males have browner upperparts with whitish bellies and some purple sheen to their bodies. Juvenile females are brown overall with whitish bellies. A long-distant migrant, it winters from Venezuela to southeastern Brazil.

- **SONG** A variety of rich low-pitched liquid gurgling notes and chirruping, mixed with cackling and varying in pitch. Songs often given predawn and in flight.
- **BEHAVIOR** In pairs or colonies. In fall, communal migratory and roosting flocks may number in the tens of thousands. Mostly catches and eats insects in flight, but also forages on ground. Nesting birds will eat broken eggshells placed for them. Frequents open country, rural agricultural areas, especially near water, and urban/suburban areas.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 15–18 days by female. Young altricial; brooded by female; stay in nest 26–31 days, fed by both sexes. 1–3 broods per year.
- **POPULATION** Common; declining, especially in the West.
- **BIRDHOUSES** Man-made martin houses and gourds.
- **CONSERVATION** Neotropical migrant. National Audubon



Similar Birds

-  **TREE SWALLOW**
Smaller; entire underparts are bright white with no grayish tone; dark glossy blue-green upperparts
• juveniles and first spring adults have browner upperparts.
-  **GRAY-BREASTED MARTIN** ♂
Smaller; gray-brown face, throat, and flanks; dusky gray-brown underparts; dark bluish upperparts; cleft tail
• eastern range.



Society Blue List. Practice of removing dead cavity-filled trees, especially in riparian areas, has reduced nesting sites. Introduced European Starling and House Sparrow compete for nesting cavities.

Flight Pattern



Strong graceful flight with few rapid wing beats followed by long glides. Often flies in circles while gliding.

Nest Identification

Shape 

Location 

Grasses, leaves, mud, feathers, and bits of debris • in martin houses, old woodpecker holes in trees and cacti, or in ridges in cliffs or large rocks
• 5–20 feet above ground • built by both sexes • 3–8 plain white eggs; oval to long oval, 0.96 x 0.68 inches.

Plumage Sexes differ	Habitat 	Migration Migratory	Weight 1.7 ounces
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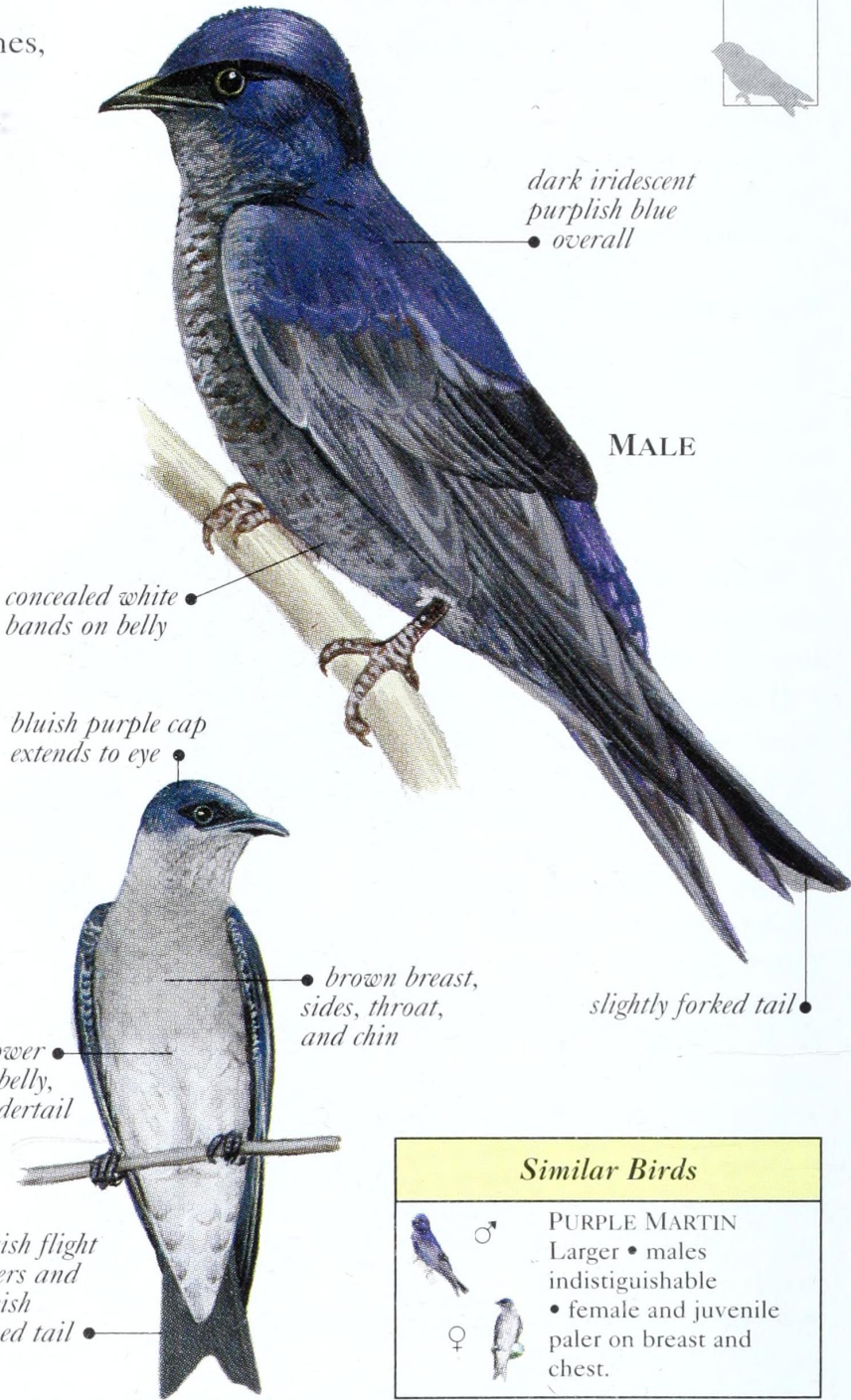
DATE _____ TIME _____ LOCATION _____

Family	HIRUNDINIDAE	Species	<i>Progne cryptoleuca</i>	Length	7.25 inches	Wingspan	15.5 inches
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CUBAN MARTIN

Nesting in Cuba and on the Isle of Pines, this little-known bird is accidental in Florida. It is similar to the Purple Martin, and males are impossible to distinguish from one another in the field. The Cuban Martin previously was considered a race of the Purple Martin (*P. subis*), or the Caribbean Martin (*P. dominicensis*) a species which has never been found in North America. Males are dark iridescent purplish blue overall with concealed white feathers on the belly. Females and juveniles are duller than the adult males and have white underparts with grayish brown upper breast and sides. In flight, adult females show a bluish purple nape and upperparts, blackish flight feathers, and a blackish notched tail.

- **SONG** Gives a liquid-sounding twangy *chew*.
- **BEHAVIOR** Fairly gregarious, especially in the evening. It often flies high on updrafts along cliffs bordering the sea. Martins catch most of their food while in flight, often at rather high altitudes, but they also forage for food close to the ground and low over the water's surface. Diet is primarily flying insects, some spiders, fruits, and seeds.
- **BREEDING** Monogamous. Loose colonies.



MALE

FEMALE

Similar Birds

 ♂
• PURPLE MARTIN
Larger • males indistinguishable

 ♀
• female and juvenile paler on breast and chest.

Flight Pattern



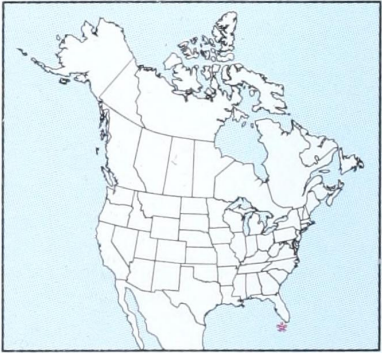
Light buoyant flight. Follows rapid wing beats with long glides, often changing direction and soaring in arcs and circles.

Nest Identification

Shape 

Location 

- **NESTING** Incubation 15–18 days by the female. Young altricial; remain in nest 26–31 days, fed by both sexes. 1 brood per year.
- **POPULATION** Found once in Key West, Florida in 1895.



Twigs, dried grasses, stems, and leaves, lined with fine materials • in cavity of rocks, tree, or in man-made structure • 8–30 feet above ground • built by both sexes • 2–5 white eggs, unmarked; oval to long oval, 0.96 x 0.7 inches.

Plumage	Sexes differ	Habitat		Migration	Nonmigratory	Weight	1.5 ounces
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DATE _____ TIME _____ LOCATION _____

Family HIRUNDINIDAE	Species <i>Progne chalybea</i>	Length 7 inches	Wingspan 15 inches
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GRAY-BREASTED MARTIN

Individuals of this native of Mexico, Central America and South America were found in southern Texas twice in the 19th Century. It has adapted as humans have altered its habitat, and it will nest in bird boxes, eaves of buildings, or other man-made structures. In flight, this bird shows dark brownish underwings and a dark brownish notched tail. Females and juveniles are similar to males, but their upperparts are mottled dusky, the throat often is paler, and the chest is a more uniform dusky color.

• **SONG** Often prolonged hesitant chirping warble given as a nasal trilled *chiurr-chi-chur* or *chew*.

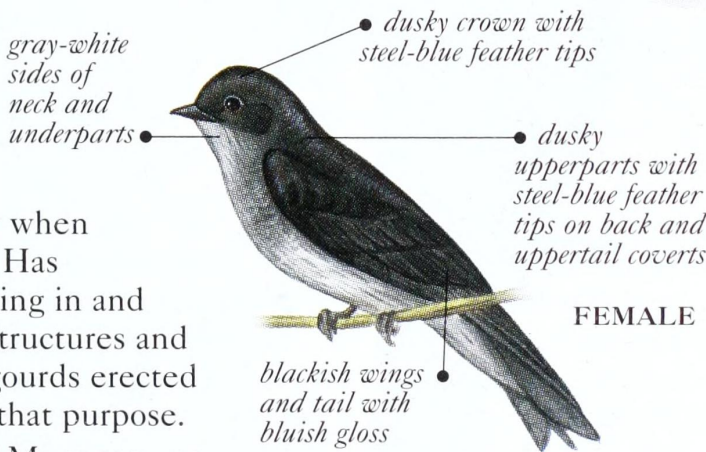
• **BEHAVIOR** Solitary or in pairs or flocks. Often gregarious outside breeding season. Catches large amounts of insects while in flight, including moths, wasps, bees, dragonflies, and termites. Like other martins, it is graceful and powerful on the wing. Often covers great distances daily to gather food, especially when feeding young. Has adapted to nesting in and on man-made structures and in houses and gourds erected specifically for that purpose.

• **BREEDING** Monogamous. Solitary or colonial.

• **NESTING** Incubation 15–18 days by female. Young altricial; stay in nest 22–30 days, fed by both sexes. 1 brood per year.



MALE



FEMALE

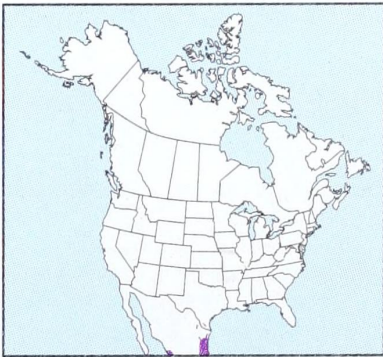
Similar Birds



NORTHERN ROUGH-WINGED SWALLOW
Smaller; brown upperparts; dusky throat; off-white underparts; slightly notched tail.



PURPLE MARTIN
Male is dark glossy purplish blue overall • female and juvenile have grayish white underparts.



Flight Pattern



Light and buoyant on the wing. Series of several quick wing beats followed by long glides, often changing direction.

Nest Identification



- **POPULATION** Accidental in the Rio Grande Valley in Texas.
- **BIRDHOUSES** Will nest in man-made bird boxes.

Shallow cup of twigs, dried stems, and leaves • in crevice of rocks or in bird boxes, eaves of buildings, bridges, or other man-made structures, 8–30 feet above ground • built by both sexes • 2–4 white eggs, unmarked; oval to long oval, 0.9 x 0.6 inches.

Plumage Sexes differ	Habitat	Migration Northern birds migrate	Weight 1.5 ounces
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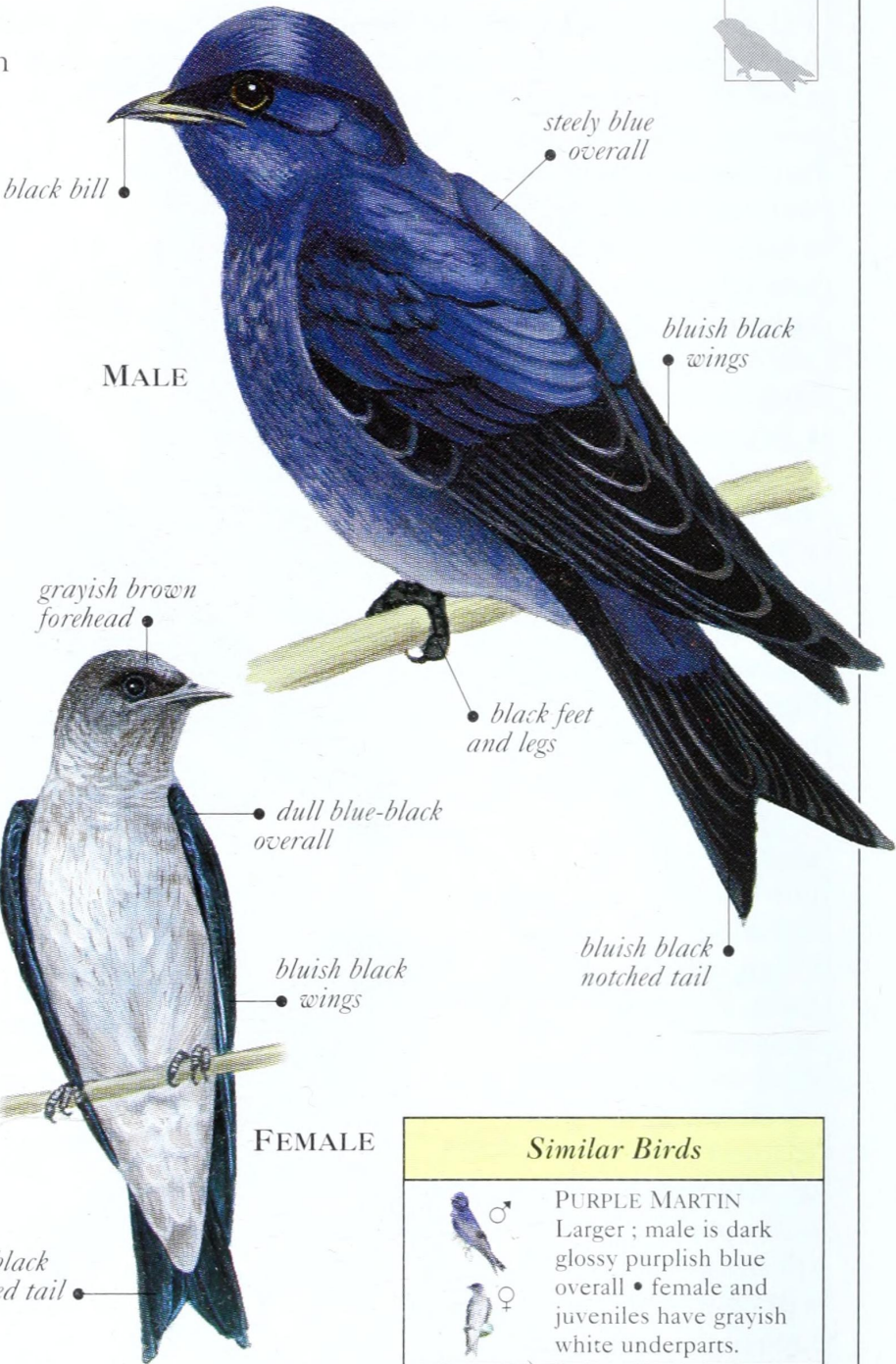
DATE _____ TIME _____ LOCATION _____

Family HIRUNDINIDAE	Species <i>Progne elegans</i>	Length 7 inches	Wingspan 15 inches
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SOUTHERN MARTIN

This martin, true to its name, breeds locally in southern and coastal western South America. The only accepted record for this species north of Mexico comes from a vagrant documented in Key West, Florida in 1890. Similar to the larger Purple Martin, the male is a glossy steely blue overall, blacker on the wings and tail. Females have less strongly glossed blue upperparts and occasionally show a grayish brown forehead. They have mostly brown underparts with feathers edged paler, giving a scaly effect. Although primarily migratory, some populations do not migrate.

- **SONG** In flight utters a musical twittering *tchur-tchur*.
- **BEHAVIOR** Gregarious, particularly in the winter when thousands may gather with other species of swallows for nightly roosts and to feed over rivers like the Amazon. Feeds on insects, most of which it catches in flight. Has learned to nest in close association with man and is fairly common around towns, buildings, and settled and agricultural areas.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 15–16 days by female. Young altricial; fed by both sexes. Fledge nest at 25–30 days. 1 brood per year.



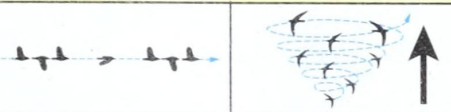
Similar Birds



PURPLE MARTIN
Larger; male is dark glossy purplish blue overall • female and juveniles have grayish white underparts.



Flight Pattern



Buoyant, graceful, and rapid; a few quick stiff wing beats followed by a long glide. Soars high in the air and above cliff faces.

Nest Identification



Cavity lined with grasses and leaves in crevices, holes in trees, man-made cavities, and buildings, 8–50 feet above ground • built by both sexes

• 2–3 white eggs, unmarked; oval to long oval, 0.9 x 0.6 inches.

Plumage Sexes differ	Habitat	Migration Some migrate	Weight Undetermined
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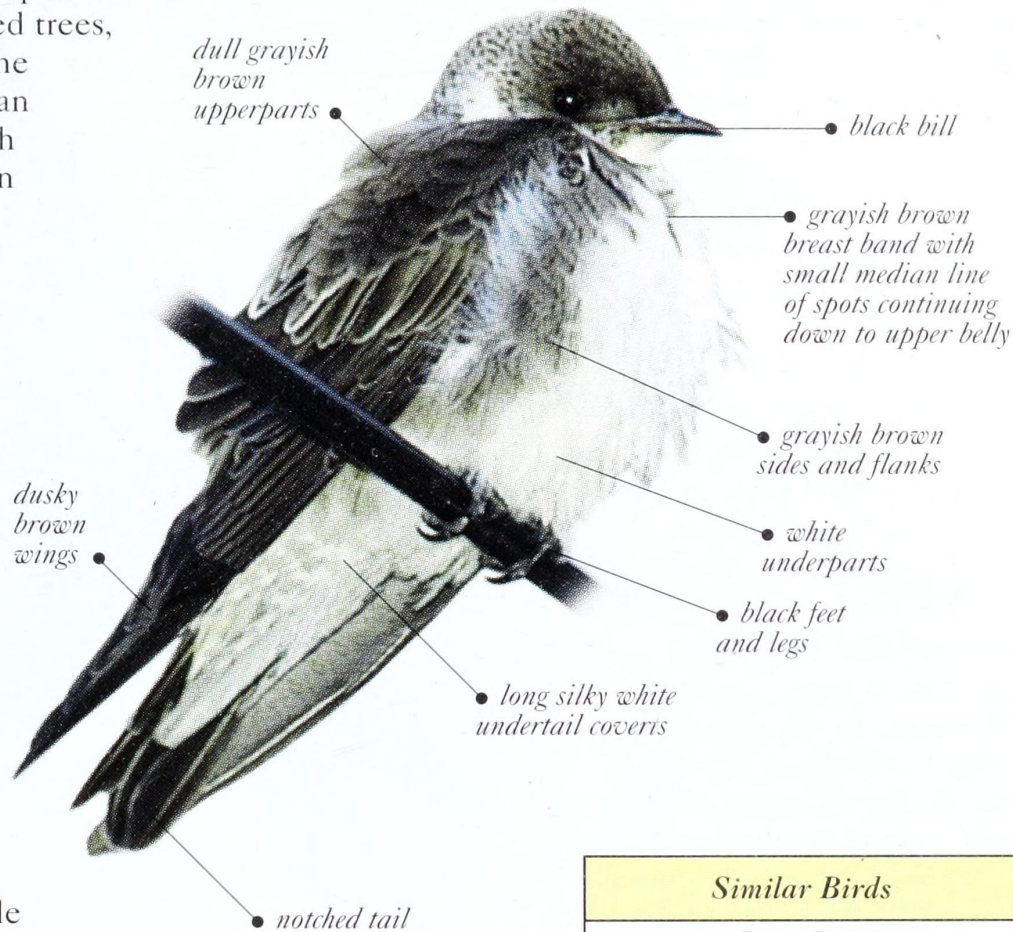
DATE _____ TIME _____ LOCATION _____

Family HIRUNDINIDAE	Species <i>Progne tapera</i>	Length 7 inches	Wingspan 15 inches
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BROWN-CHESTED MARTIN

Normally occurring over most of South America east of the Andes, this bird is generally common in semiopen or open country with scattered trees, often near water outside the breeding season. But it is an accidental vagrant in North America, where it has been recorded only twice, once in Massachusetts and once in Florida. Its color and pattern, including the wide band across the breast, and its size all make it resemble a large washed-out Bank Swallow. In flight the long white undertail coverts are usually protruding from the sides and are visible from above as the bird twists and banks in the air.



- **SONG** A rich gurgling similar to that of the Purple Martin. Also makes a flat weak-sounding *chu, chu, chu*.
- **BEHAVIOR** Gregarious. In pairs or flocks. Nests in scattered pairs. Often associates with other martins and swallows when feeding or roosting, particularly during the nonbreeding season. Feeds on insects. Is an aerial feeder, but unlike other martins, often feeds very close to the ground and can appear somewhat sluggish, frequently perching on branches.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Breeding biology is poorly known. Incubation is

estimated at 15–18 days by female. Altricial young fed by both sexes; fledge nest at an estimated 22–30 days. 1 brood per year.

- **POPULATION** Accidental in the US. Fairly common in its normal range in South America.

Similar Birds



BANK SWALLOW
Smaller; darker chocolate-brown upperparts; blackish brown wings and tail; white underparts; dark grayish brown breast band; white undertail coverts do not protrude upward and are not visible from above; voice differs.



Flight Pattern



Swift graceful flight typical of martins. Alternates several rapid wing beats with long glides; glides in long circles, making quick changes of direction.

Nest Identification

Shape

Location

Abandoned nest • grasses and leaves in the abandoned or appropriated Dutch oven-shaped mud nest of a hornero, in cavity of an arboreal termite nest, or in tree cavity of woodpecker hole or in utility pole • built by both sexes • 2–3 white eggs, unmarked; oval to long oval, 0.9 x 0.6 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.3 ounces
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DATE _____ TIME _____ LOCATION _____

Family HIRUNDINIDAE	Species <i>Tachycineta bicolor</i>	Length 5.75 inches	Wingspan 12.5 inches
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TREE SWALLOW

The Tree Swallow is equally common in open fields, marshes, or towns. This bird's ability to adapt to its ever-changing environment has led to its abundant and widespread population. Migrating in huge flocks during the day, it is one of the first swallows to travel to its summer home in upper North America. Many winter on the southern Atlantic Coast, Gulf Coast, and in Florida. In flight it shows dark upperparts, white underparts, triangular wings with greenish underwing linings, and a notched tail. Juveniles have dusky brown upperparts and often a dusky wash on the breast.

- **SONG** Utters quick repetitious *silip* or *chi-veet*. In flight makes pleasant liquid gurgling chatter.
- **BEHAVIOR** Gregarious in migration and winter; often occurs in huge flocks. Feeds in mixed flocks with other swallow species. Catches insects in flight; sometimes forages on ground. Eats mainly flying insects but also may take small crustaceans and spiders. Often eats berries and seeds during cold snaps on wintering grounds or in spring migration. Inhabits open country and woodland edges near water. Male displays for female with series of aerial gymnastics.
- **BREEDING** Most often polygamous. Loose social colonies. Males may have 2 mates simultaneously and different mates each year.
- **NESTING** Incubation 13–16 days by female. Altricial young remain in nest 16–24 days. Fed by both sexes. 1 brood per year (rarely 2).
- **POPULATION** Abundant and increasing.

- **BIRDHOUSES** Uses man-made bird boxes and gourds.
- **CONSERVATION** Some are neotropical migrants. Forestry practice of removing dead trees eliminates many potential nesting sites.



white cheek patch stops below eye

dark iridescent greenish blue upperparts

white underparts

blackish flight feathers

slightly notched tail

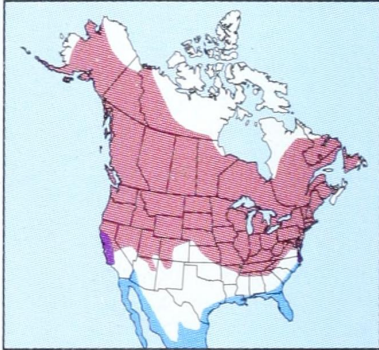


JUVENILE

Similar Birds



VIOLET-GREEN SWALLOW
White rump patches extend onto sides of rump; white on cheek extends up to, behind, and above eye; purple-green gloss on upperparts • sympatric only in the West.



Flight Pattern

Swift graceful flight with slow deep wing beats alternated with long to short glides. Turns back sharply on insects it passes.

Nest Identification

Shape Location Abandoned Nests

Dried stems and grass • lined with down and feathers • in tree cavity, abandoned nest, bird box, or other man-made structure • built by both sexes, but female does more • 4–6 white eggs; oval to long oval, 0.8 x 0.5 inches.

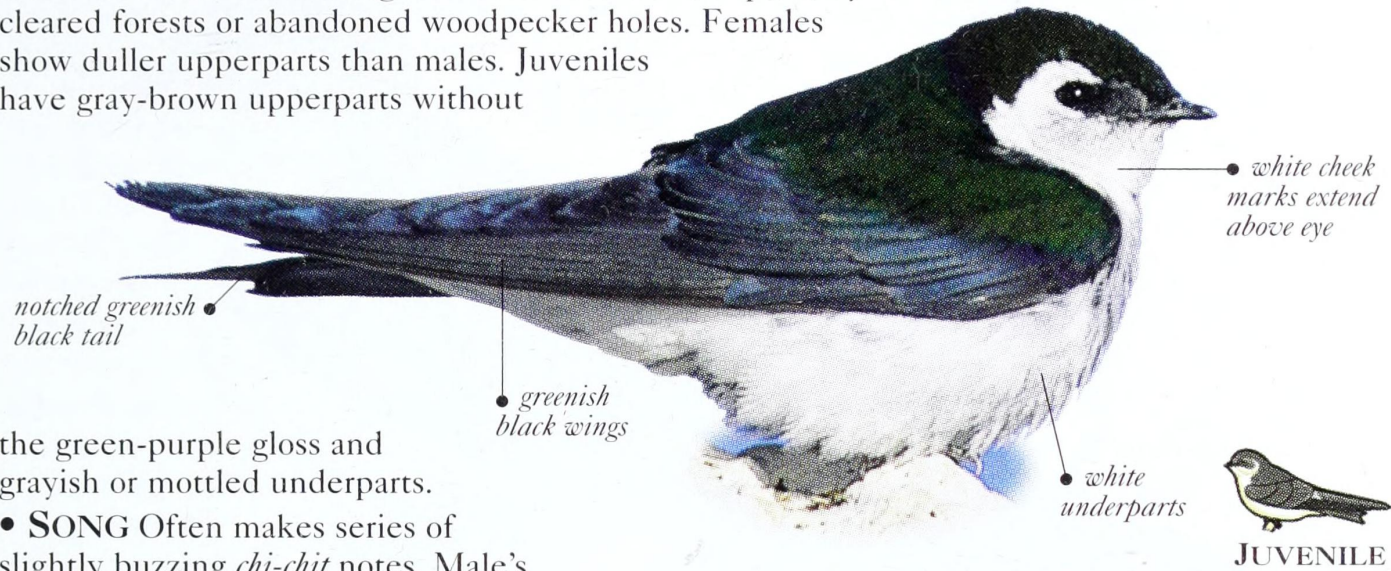
Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.7 ounce
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DATE _____ TIME _____ LOCATION _____

Family	HIRUNDINIDAE	Species	<i>Tachycineta thalassina</i>	Length	5–5.25 inches	Wingspan	11–12 inches
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VIOLET-GREEN SWALLOW

The gloss of brilliant greens and purples that shows on its head, back, and rump in bright sunlight and the white patches on the sides of its rump that show in flight set this bird apart from its cousin, the Tree Swallow, with which it often closely associates. Its historical choice for nesting sites is in dead trees of partially cleared forests or abandoned woodpecker holes. Females show duller upperparts than males. Juveniles have gray-brown upperparts without



the green-purple gloss and grayish or mottled underparts.

- **SONG** Often makes series of slightly buzzing *chi-chit* notes. Male’s courtship song is repetitive *tsip, tseet, tsip*, given in flight before daylight.
- **BEHAVIOR** Gregarious. Usually feeds in flocks and catches insects, its principal diet, in flight. Rarely takes insects from ground. Usually feeds by flying close to the ground or low over water; sometimes feeds at great heights on insects that have risen high in the air column. Defends nest cavities from other swallows. Has been documented helping feed Western Bluebird nestlings, then taking over the nesting cavity when they fledge. Often perches high in trees, on fences, or on utility wires.
- **BREEDING** Monogamous. Occasionally found in loose colonies of up to around 20 pairs.
- **NESTING** Incubation 13–14 days by female. Altricial young remain in nest 16–24 days. Fed by both sexes, but female does more. 1 brood per year.
- **POPULATION** Common in various woodland habitats in range, often found at higher elevations in mountains. Stable. Casual in the East.

Similar Birds

TREE SWALLOW
Snowy white underparts; steely blue-green upperparts, including cap to below eye; blue-green rump; blackish flight feathers
• juvenile has brownish upperparts; white underparts.

WHITE-THROATED SWIFT
Black upperparts; white underparts with black side patches; longer more slender wings; long forked tail; more fluttering flight.

Flight Pattern

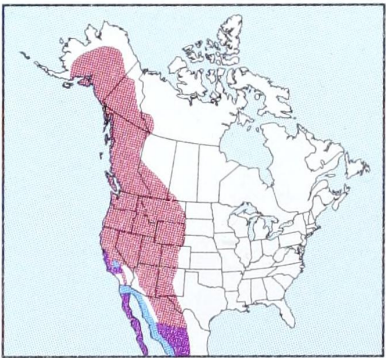
Swift graceful flight, alternating several rapid wing beats with long glides. Soars on thermals and updrafts along cliff faces and canyon walls.

Nest Identification

Shape

Location

Grass and weed stems • lined with feathers • in natural cavity, abandoned woodpecker hole, or crevice in dead tree; on rock ridges or in bird box • built by both sexes • 4–6 unmarked white eggs; oval, 0.8 x 0.55 inches.



Plumage	Sexes similar	Habitat		Migration	Migratory	Weight	0.6 ounce
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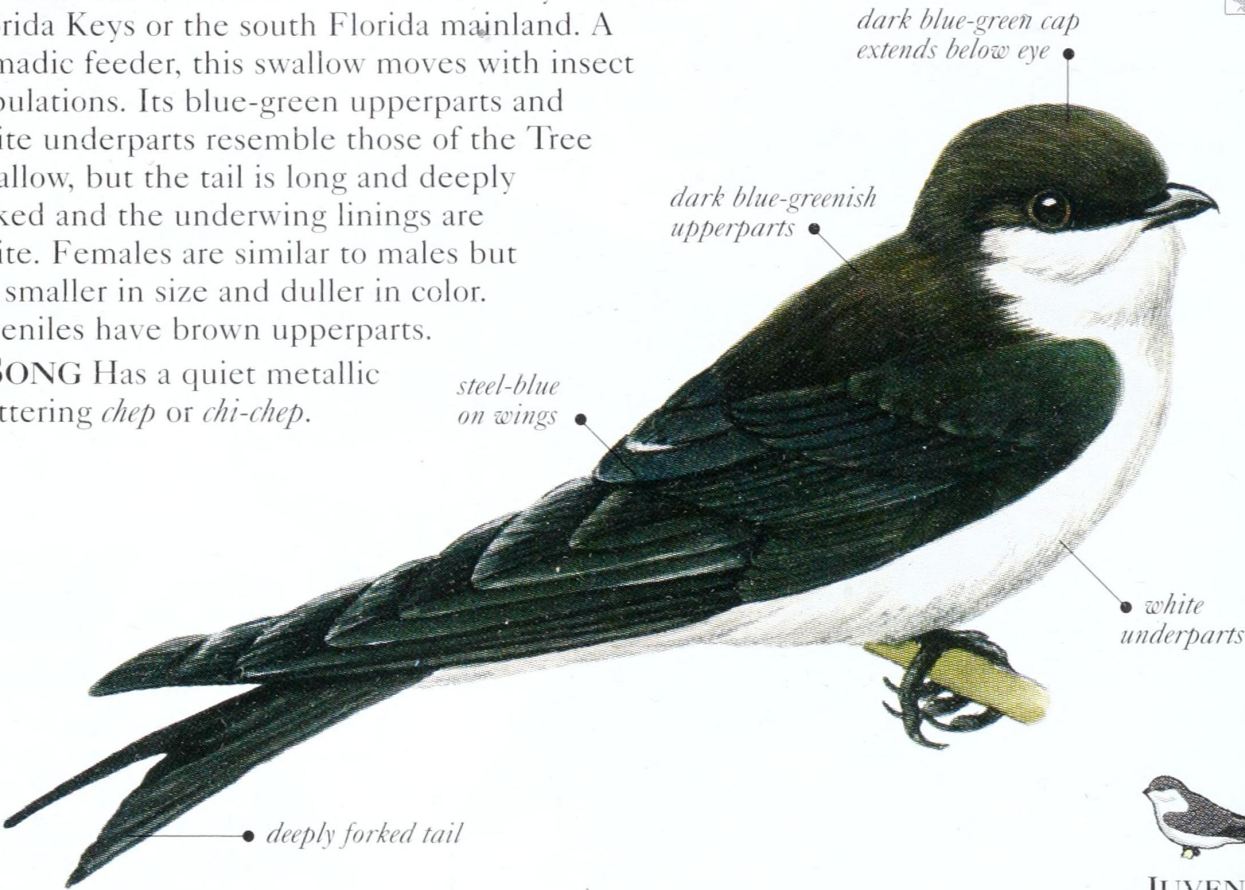
DATE _____ TIME _____ LOCATION _____

Family HIRUNDINIDAE	Species <i>Tachycineta cyaneoviridis</i>	Length 5.75 inches	Wingspan 11–12 inches
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BAHAMA SWALLOW

Occasionally seen with flocks of Tree or Cliff Swallows, this endemic of the Bahama Islands rarely visits the Florida Keys or the south Florida mainland. A nomadic feeder, this swallow moves with insect populations. Its blue-green upperparts and white underparts resemble those of the Tree Swallow, but the tail is long and deeply forked and the underwing linings are white. Females are similar to males but are smaller in size and duller in color. Juveniles have brown upperparts.

- **SONG** Has a quiet metallic twittering *chep* or *chi-chep*.



- **BEHAVIOR** Single, in pairs, or in small flocks of up to 20 birds. Feeds and nests primarily in pine woods. Somewhat nomadic in the nonbreeding season, wandering widely over many habitats in the Bahamas and eastern Cuba. Feeds on flying insects while it is in flight; it is agile and able to make quick directional changes while in pursuit of insects. Has adapted to nesting under eaves and in holes in buildings.
- **BREEDING** Monogamous. Solitary to colonial.
- **NESTING** Breeding biology poorly known; incubation by female estimated at 13–16 days. Altricial young fed by both sexes; fledge nest at estimated 16–24 days. 1 brood per year.
- **POPULATION** Casual to the Florida Keys and south Florida mainland. Uncommon in northern Bahamas in summer; uncommon to casual throughout the Bahamas and eastern Cuba outside summer.

Similar Birds



TREE SWALLOW
Lacks white underwing linings and deeply forked tail.

Flight Pattern



Swift graceful flight alternating rapid wing beats with long glides. Similar to that of other swallows.

Nest Identification

Shape 

Location 

- **CONSERVATION** The destruction of pine forests in this bird's breeding range in the Bahamas has contributed to a decline in its numbers.



Grass and leaves, lined with finer materials • in trees, stumps, or under eaves on buildings • built by both sexes • 3 white eggs; oval to long oval, 0.8–0.55 inch long.

Plumage Sexes similar	Habitat 	Migration Nonmigratory	Weight 0.6 ounce
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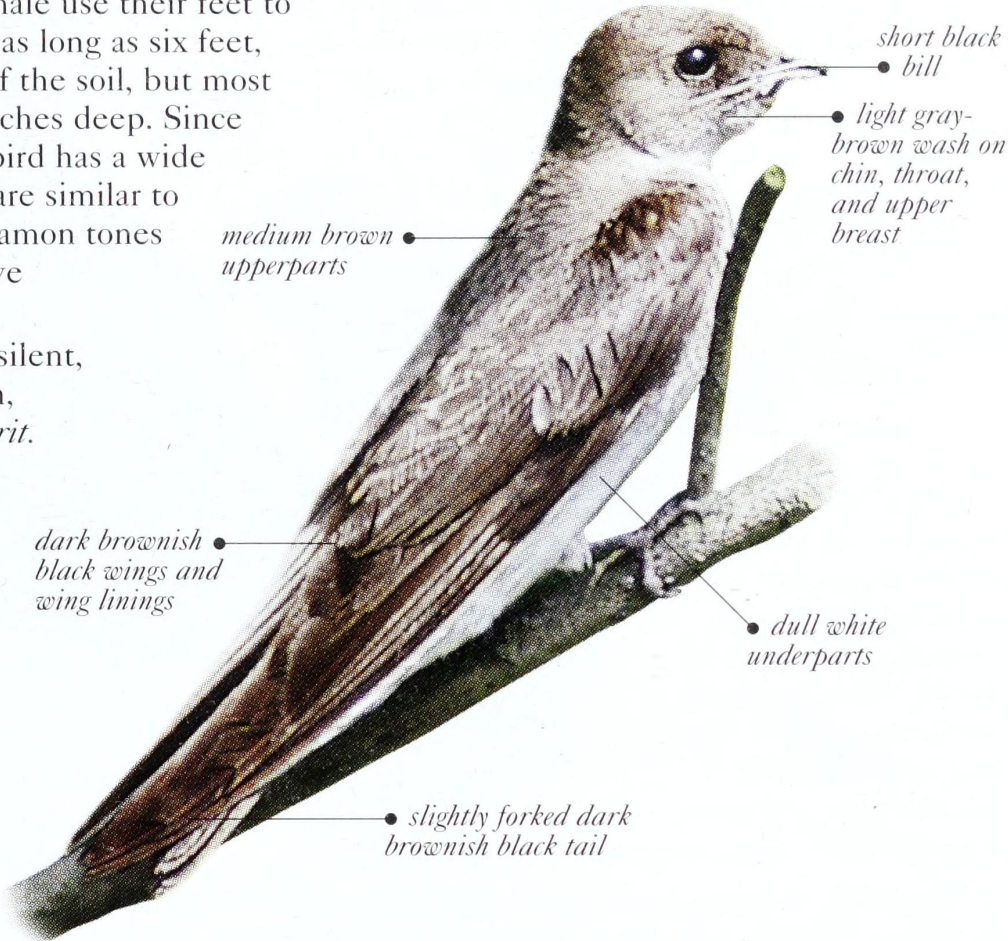
DATE _____ TIME _____ LOCATION _____

Family HIRUNDINIDAE	Species <i>Stelgidopteryx serripennis</i>	Length 5.5 inches	Wingspan 11–12 inches
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NORTHERN ROUGH-WINGED SWALLOW

This bird is named for the tiny hooks found on its outer primary feathers. Their function is unknown, but they may produce a sound during courtship display. The male and female use their feet to dig nesting burrows, some as long as six feet, depending on the nature of the soil, but most are nine to twenty-eight inches deep. Since it is highly adaptable this bird has a wide breeding range. Juveniles are similar to adults but show more cinnamon tones in their upperparts and have cinnamon wing bars.

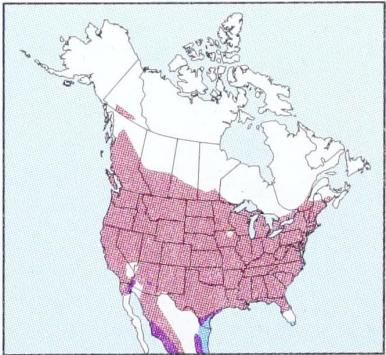
- **SONG** Usually remains silent, but sometimes utters harsh, buzzing *quiz-z-zeeitp* or *zzrrit*.
- **BEHAVIOR** Solitary or in pairs or small flocks. Gregarious in migration. Catches and consumes a variety of flying insects while in flight. Also occasionally takes insects from ground. Often feeds low over open landscapes or water and sometimes feeds along with other species of swallows. Quickly adapted nesting to utilize crevices in rock cuts along interstate highways. During courtship male chases female, flying with white undertail coverts spread along sides of tail.
- **BREEDING** Monogamous. Solitary or in small colonies.
- **NESTING** Incubation 12 days by female. Altricial young remain in nest 19–21 days. Fed by both sexes. 1 brood per year.
- **POPULATION** Common and increasing.



Similar Birds



BANK SWALLOW
Smaller; darker brown upperparts; dark brown breast band; snow-white underparts; faster wing beats with quick changes of direction.



Flight Pattern



Swift graceful flight with several deep slow wing beats, pulling back wings after each stroke, then a short to long glide.

Nest Identification

Shape 

Location 

- **BIRDHOUSES** Will nest in some types of man-made structures but has not been recorded to use nest boxes.
- **CONSERVATION** Neotropical migrant.

No nest materials except a few bark chips, grass, and leaves • on bank, sides of rough cliff, highway/railroad rock cuts, or building or in abandoned burrows, drain pipes, or sewer pipes • dug by both sexes • 4–8 plain white eggs; long oval, 0.7 x 0.5 inches

Plumage Sexes similar	Habitat 	Migration Migratory	Weight 0.6 ounce
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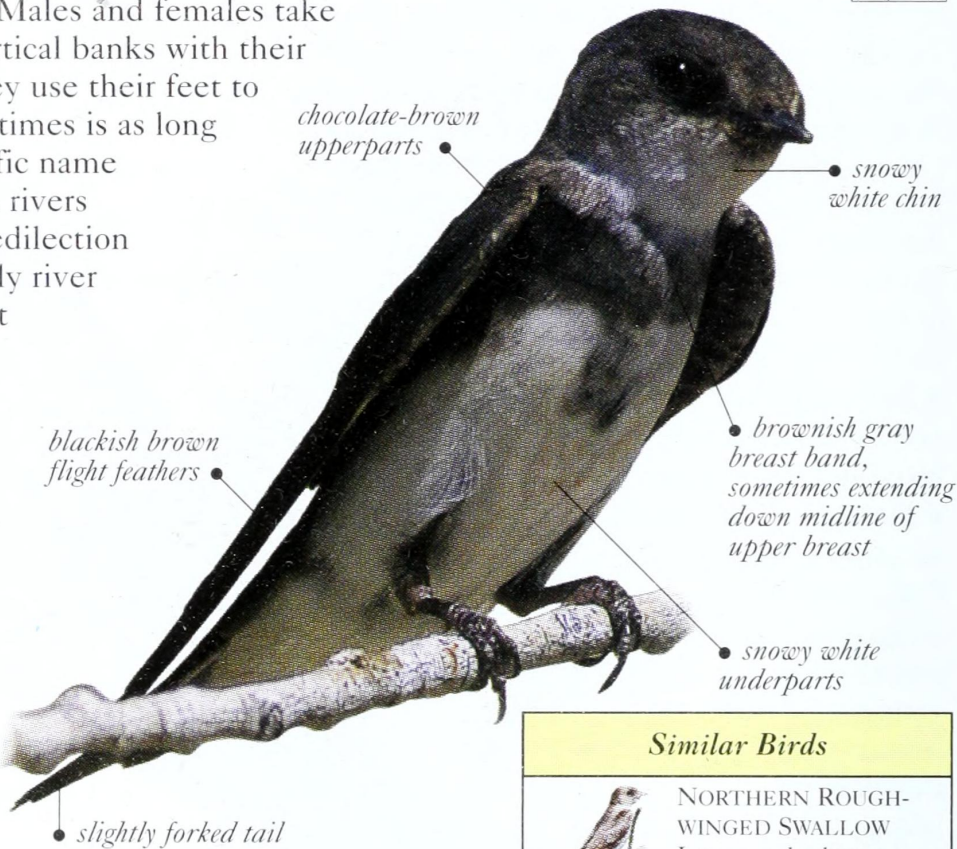
DATE _____ TIME _____ LOCATION _____

Family HIRUNDINIDAE	Species <i>Riparia riparia</i>	Length 4.75 inches	Wingspan 10–11 inches
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BANK SWALLOW

The smallest member of the North American swallow family is an aerial gymnast that twists and turns in the air over its breeding territory. Males and females take turns digging burrows into vertical banks with their bills. Once a hole is made, they use their feet to finish the tunnel, which sometimes is as long as five to six feet. The scientific name refers to their association with rivers during migration and their predilection for nesting along sandy gravelly river banks. The dark narrow breast band is difficult to see when the bird is in flight, but the combination of an erratic flight pattern, chocolate-brown upperparts, paler brown rump, dark brown wing linings, and snowy white underparts serve to identify this bird. Juvenile wing coverts and tertials are edged cinnamon and the throat and upper breast are washed pale cinnamon.

- **SONG** Dry chattering, *zzzrt orzzzrt, zzzrtt.*
- **BEHAVIOR** Gregarious. Often migrates and feeds with other swallows. Gathers in large premigratory and communal roosts. Catches insects while flying. Occasionally takes insects from ground or water’s surface. Courtship includes dropping and catching feathers in the air, as if playing, by each member of pair; copulation in the nest burrow often follows such “play” and many feathers are used in the nest lining.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 14–16 days by both sexes. Altricial young stay in nest 18–24 days, fed by both sexes. 1–2 broods per year.



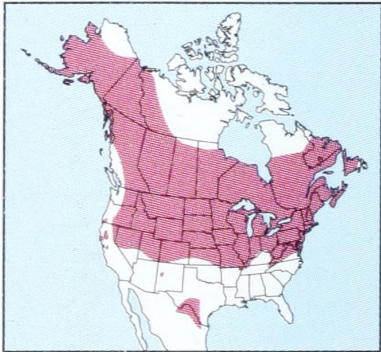
Similar Birds



NORTHERN ROUGH-WINGED SWALLOW
Larger; paler brown upperparts; lacks brown chest band; dusky white underparts; light gray-brown wash on chin, throat, and upper breast; slower deeper wing beats.



TREE SWALLOW
Juvenile is larger; white underparts from chin to undertail coverts; often with dusky breast band; greenish blue upperparts.



Flight Pattern



Swift erratic fluttering flight on shallow wing beats; often alternates several rapid wing beats with short to long glides.

- **POPULATION** Common and widespread; often near water. Numbers are stable overall, but species is declining in California due to river bank alteration for flood control.
- **CONSERVATION** Neotropical migrant.

Nest Identification

Shape



Location



Lined with grass, rootlets, weed stems, horsehair, and feathers • in sandy or rocky bank, gravel pit, or man-made embankment, such as a highway road cut • dug by both sexes • 3–7 plain white eggs; oval to short oval, 0.7 x 0.5 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.5 ounce
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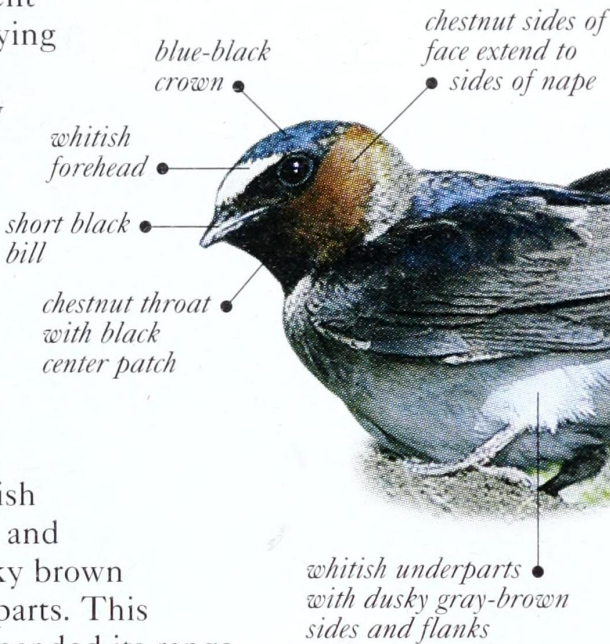
DATE _____ TIME _____ LOCATION _____

Family HIRUNDINIDAE	Species Petrochelidon pyrrhonota	Length 5.5 inches	Wingspan 12 inches
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CLIFF SWALLOW

Hundreds of gourd-shaped “mud jugs” plastered to the side of a barn or under a bridge or highway overpass are a typical nesting territory for these highly adaptable birds. Farmers heartily welcome this resident because it eats numerous flying insects that are harmful to crops. Nesting colonies may number from eight hundred to more than one thousand birds. Note the dark rusty brown throat, and in flight the brown underwing linings, cinnamon buff rump, square tail, dusky cinnamon undertail coverts with dark centers, and whitish buff edged feathers of back and tertials. Juveniles have dusky brown upperparts and paler underparts. This swallow has successfully expanded its range in the Southeast and the West. The southwestern race displays a cinnamon forehead similar to the Cave Swallow.

- **SONG** Utters a dry guttural *churr* or *zarp*. Alarm call is burry *keer*. During breeding, a chattering, squeaking, sputtering warble.
- **BEHAVIOR** Gregarious. Catches food in flight; sometimes forages on ground. Eats variety of flying insects and some berries and fruit. Constructs one of the most complex swallow nests: a sphere of mud pellets with a tubular entrance on one side. Colonies are source of foraging information for other birds; birds follow members who are successfully feeding young back to food sources.
- **BREEDING** Monogamous. Large colonies.
- **NESTING** Incubation 14–16 days by both sexes. Altricial young in nest 21–24 days, fed by both sexes. 1–3 broods a year.
- **POPULATION** Common in open country, especially near water. Range is expanding and numbers are increasing.
- **CONSERVATION** Neotropical migrant. Previously listed as



squared blackish tail with slight cleft

blue-black wings and back

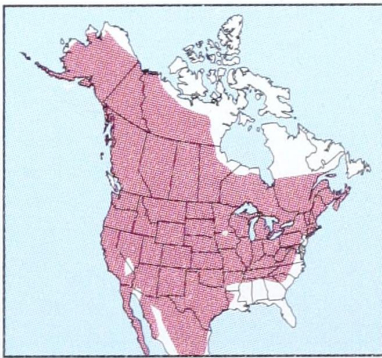
JUVENILE



Similar Birds



CAVE SWALLOW
Pale cinnamon-buff throat; cinnamon forehead; richer cinnamon-rust rump.



being of special concern, but successful adaptation to nesting on man-made structures such as buildings, highway bridges and overpasses, railroad bridges, dams, and other vertical walls has greatly expanded populations and range.

Flight Pattern

Swift graceful flight alternating several deep rapid wing beats with long elliptical glides with sharp sweeping upturns at the end. Soars on thermals and updrafts.

Nest Identification

Shape

Location

Pellets of clay or mud, with lining of grasses, down, and feathers • usually under eaves of buildings or under dams or bridges; sometimes on ridges of canyons; rarely on trunk of conifer tree under overhanging branch • built by both sexes • 3–6 white, cream, or pinkish eggs, marked with browns; oval to long oval, 0.8 x 0.5 inches.

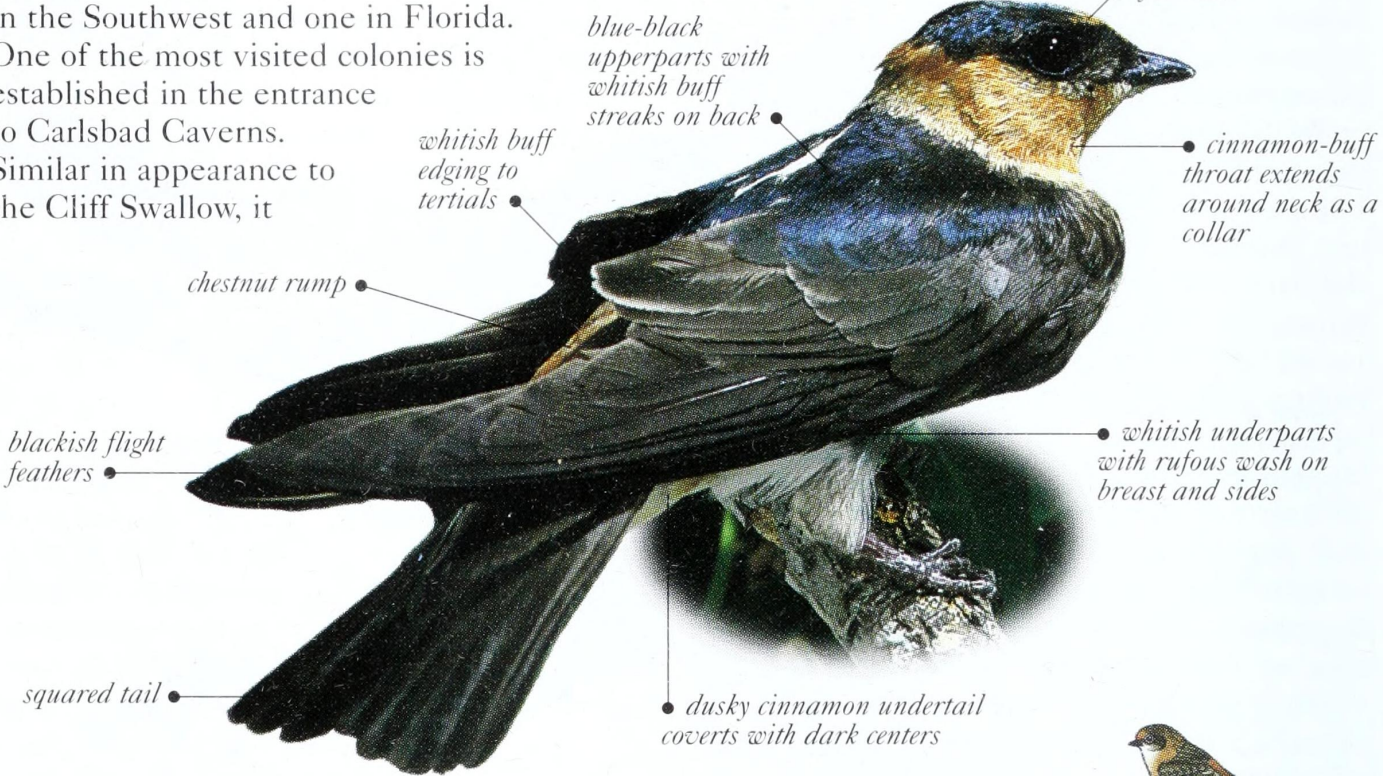
Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.8 ounce
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DATE _____ TIME _____ LOCATION _____

Family	HIRUNDINIDAE	Species	<i>Petrochelidon fulva</i>	Length	5.5 inches	Wingspan	12 inches
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CAVE SWALLOW

This bird plasters its cuplike nests to the sides of caves, but it has adapted to man-made structures and now also uses buildings, bridges, culverts, and even drainage pipes. A native of Mexico and the West Indies, in North America two races nest, one in the Southwest and one in Florida. One of the most visited colonies is established in the entrance to Carlsbad Caverns. Similar in appearance to the Cliff Swallow, it



often nests with them, and with Barn Swallows. In flight it shows brownish underwing linings. The southwestern race of the Cliff Swallow has the cinnamon forehead but has a dark throat.

- **SONG** Series of dry warbling buzzy chatters; sometimes calls *chu-chu* or *zweih*.
- **BEHAVIOR** Gregarious. Eats insects caught in flight. Builds a complex nest: a sphere constructed of mud pellets with a tubular entrance on one side. Colonies often active on same site year after year and may repair and reuse old nests.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 15–18 days by both sexes. Young altricial; remain in nest 21–33 days, fed by both sexes. Has 2 broods per year.

Similar Birds



CLIFF SWALLOW
Pale whitish to buff forehead; dark rusty brown throat with black center patch; pale cinnamon-buff rump
• southwestern race has cinnamon forehead.

Flight Pattern



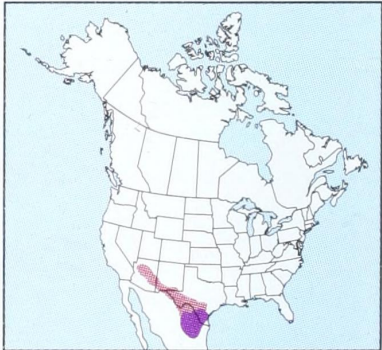
Swift graceful flight, alternating several rapid deep wing beats with long elliptical glides ending on sharp sweeping upturns. Soars on winds and thermals.

Nest Identification

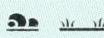
Shape 

Location 

- **POPULATION** Fairly common but somewhat local. Expanding range and increasing in number. Casual in Northeast.
- **CONSERVATION** Neotropical migrant.



Pellets of clay and mud with lining of grasses and a few feathers • plastered to sides of caves, sinkholes, bridges, culverts, buildings, or even drainage pipes • built by both sexes • 3–5 white eggs, marked with browns; oval to long oval, 0.8 x 0.5 inches.

Plumage	Sexes similar	Habitat		Migration	Migratory	Weight	0.7 ounce
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DATE _____ TIME _____ LOCATION _____

Family HIRUNDINIDAE

Species *Hirundo rustica*

Length 6.75–7.5 inches

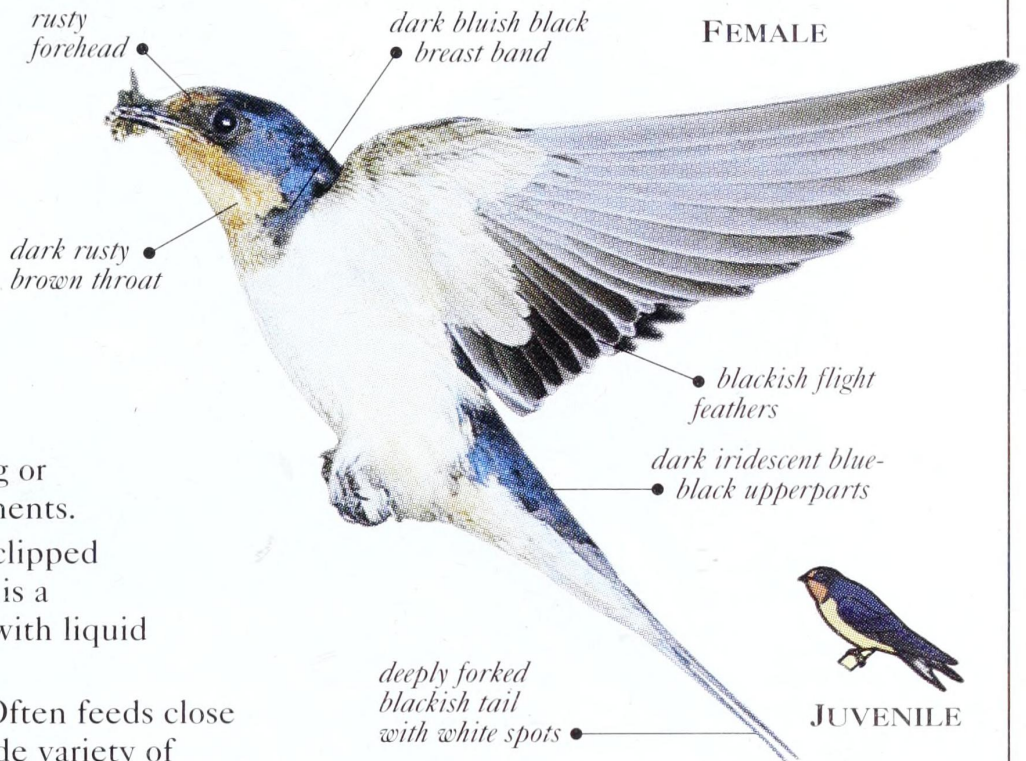
Wingspan 12.5–13.5 inches

BARN SWALLOW

Since early colonial times this bird has been a welcome presence on farms because it eats many crop-destroying insects. Usually nesting inside of barns or other buildings, it is the only North American

swallow with buffy to cinnamon underparts and underwing linings and a white-spotted deeply forked tail. The female is similar to the male but most often is duller in color. Juveniles have shorter forked tails and creamy white underparts. The most wide-ranging swallow in the world, it is cosmopolitan, found breeding or wintering on almost all continents.

- **SONG** Utters a repetitive clipped *chi-dit, chi-dit* or *wit-wit*. Song is a prolonged twittering warble with liquid guttural notes interspersed.
- **BEHAVIOR** Gregarious. Often feeds close to ground or water. Eats a wide variety of flying insects, and follows farm machinery, even riding lawnmowers, to feed on stirred-up insects. Courtship flights may include pairs dropping and catching feathers in midair; upon landing pairs may engage in mutual preening. Individuals show strong site fidelity, and colonies may exist over long periods on the same site, with the same individuals sometimes building nests on the same site used the previous year. Has adapted to nesting in and on man-made structures.
- **BREEDING** Monogamous. Small colonies. During courtship, male chases female, flying over acres of land.
- **NESTING** Incubation 13–17 days by both sexes, but female does more. Young altricial; stay in nest 18–23 days, fed by both sexes. 2 broods per year.



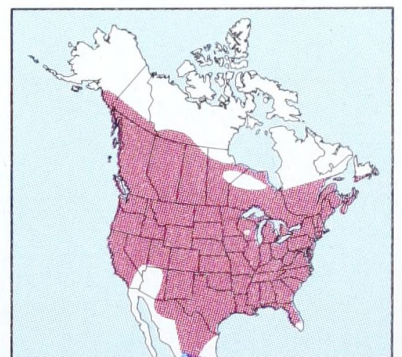
Similar Birds



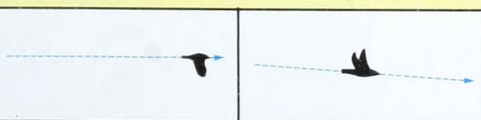
CLIFF SWALLOW
Blue-black upperparts; rusty cinnamon to buffy cinnamon rump; pale forehead; short squared tail without white spots.



CAVE SWALLOW
Blue-black upperparts; chestnut rump; short, squared tail without white spots.

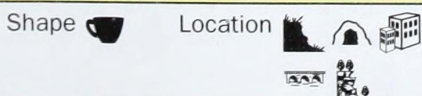


Flight Pattern



Swift and graceful with deep wing beats and wing-tips pulled back at the end of each stroke; glides are short and infrequent.

Nest Identification



- **POPULATION** Abundant and widespread in open country, agricultural lands, and savanna, especially near water. Increasing. Eurasian races are accidental to casual in Alaska.
- **CONSERVATION** Neotropical migrant.

Clay or mud, dried stems, grasses, and straw, with thick lining of horsehair, down, and feathers • inside barn or other building, in ridges of cliff, under bridge, under culvert, or attached to bank • built by both sexes • 4–7 white eggs, marked with browns; oval to long oval, 0.8 x 0.5 inches.

Plumage Sexes similar

Habitat

Migration Migratory

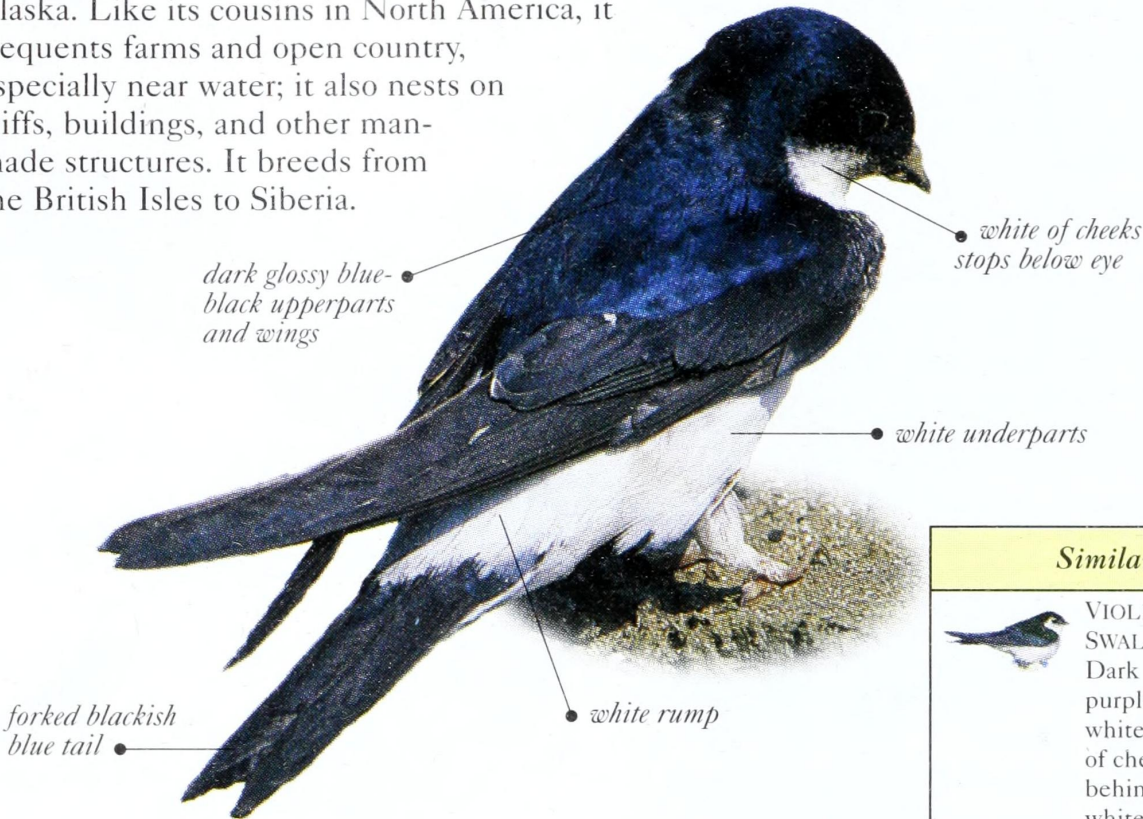
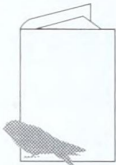
Weight 0.6 ounce

DATE _____ TIME _____ LOCATION _____

Family	HIRUNDINIDAE	Species	<i>Delichon urbica</i>	Length	5 inches	Wingspan	10–11 inches
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COMMON HOUSE-MARTIN

Set apart from other swallows by its white rump, this native of Eurasia sometimes visits Western Alaska. Like its cousins in North America, it frequents farms and open country, especially near water; it also nests on cliffs, buildings, and other man-made structures. It breeds from the British Isles to Siberia.



It often soars on its wide triangular wings, showing gray underwings in flight, and feeds over water. The female has slightly grayer underparts, and the juvenile is duller overall.

- **SONG** An abrasive *preit* or a ringing *teerch-teerch*. Song is a prolonged squeaky *twitter*.
- **BEHAVIOR** Gregarious. Feeds in flocks; gathers on wires. Feeds mostly on insects taken in flight; sits on ground more than most other swallows. Often soars long distances. Has adapted to nesting on man-made structures and is often found in and around human settlements.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 13–19 days by both sexes. Young altricial; stay in nest 19–25 days, fed by both sexes. 2–3 broods per year.

Flight Pattern

Swift and graceful direct flight on rapidly beating wings. Makes lengthy soaring flights.

Nest Identification

Shape

Location

- **POPULATION** Casual in North America in western Alaska during spring migration. Accidental in Newfoundland.

Similar Birds



VIOLET-GREEN SWALLOW
Dark glossy greenish purple upperparts; white underparts; white of cheek extends behind or above eye; white patches on rump extend almost to midline, but center of rump is dark greenish purple; greenish underwing linings; blackish underwing flight feathers.



TREE SWALLOW
Dark blue-green upperparts; white underparts; dark blue-green rump; greenish underwing lining; blackish underwing flight feathers.



Mud, leaves, dried grasses, and stems, with lining of feathers, fine grasses, and down • entrance on side near top • on sides of cliffs or under eaves of buildings or other man-made structures • built by both sexes • 4–6 white eggs; subelliptical, 0.8 x 0.5 inches.

Plumage	Sexes similar	Habitat		Migration	Migratory	Weight	0.5 ounce
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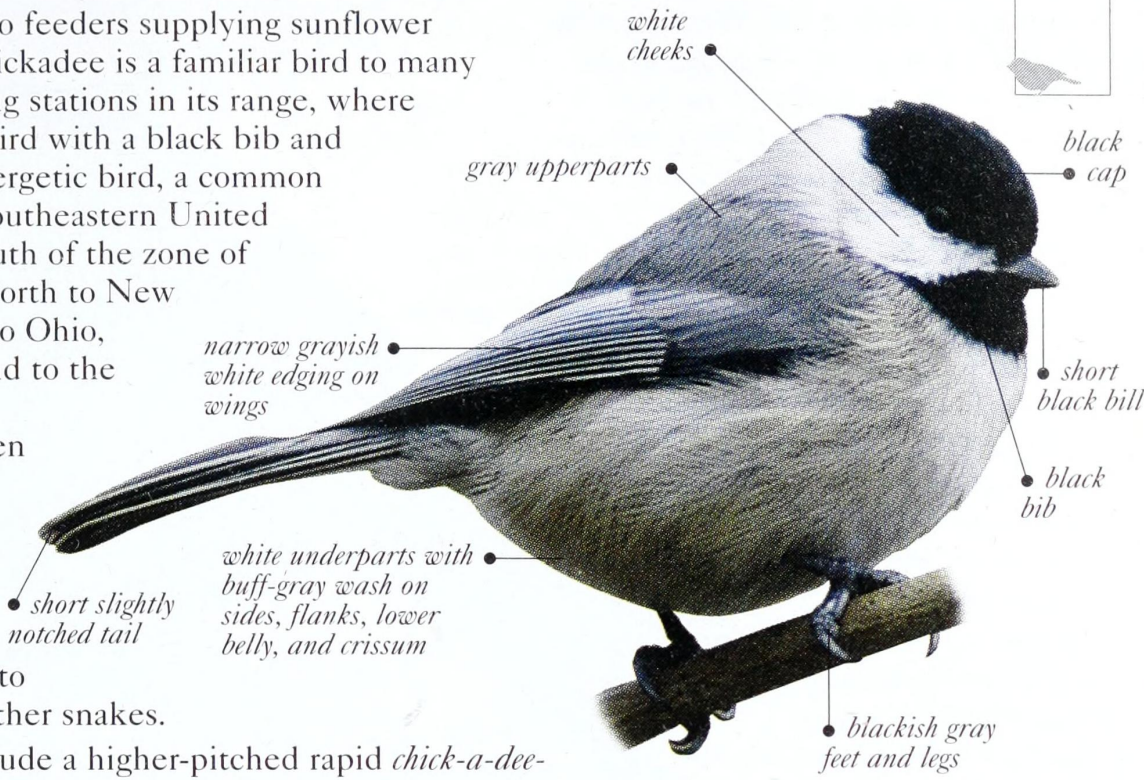
DATE _____ TIME _____ LOCATION _____

Family PARIDAE	Species <i>Poecile carolinensis</i>	Length 4.75 inches	Wingspan 7.5 inches
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CAROLINA CHICKADEE

Readily attracted to feeders supplying sunflower seeds, this little chickadee is a familiar bird to many who operate feeding stations in its range, where it is the only songbird with a black bib and black cap. This energetic bird, a common inhabitant of the southeastern United States primarily south of the zone of glaciation, ranges north to New Jersey and west into Ohio, Indiana, Illinois, and to the 100th meridian in eastern Texas. When disturbed in the nest cavity during incubation, it will hiss and strike intruders, behaving similarly to copperheads and other snakes.

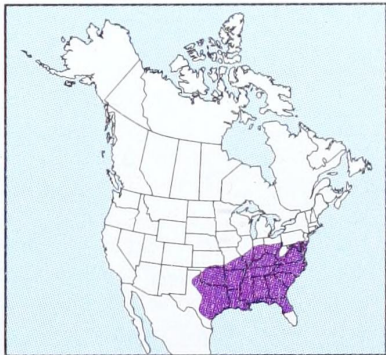
- **SONG** Calls include a higher-pitched rapid *chick-a-dee-dee-dee* and a 4-note whistled *fee-bee-fee-bay*, an octave higher than that of the Black-capped Chickadee, with lower-pitched 2nd and 4th notes. Also makes variety of high-pitched thin squeaky notes when foraging with others. Call notes are more complex than song.
- **BEHAVIOR** Pairs or small groups. After breeding often joins mixed feeding flocks with titmice, nuthatches, kinglets, warblers, Downy Woodpeckers, and others. Eats moths, caterpillars, and a wide variety of other insects when available; in winter and spring eats mostly seeds and some berries. May excavate own nest or enlarge cavity if wood is soft enough.
- **BREEDING** Monogamous. Very early nester.
- **NESTING** Incubation 11–12 days by both sexes. Altricial young stay in nest 13–17 days. Brooded by female. Fed by both sexes, mostly larval insects. 1–2 broods per year.
- **POPULATION** Common in open deciduous forests, woodland clearings, forest edges, and suburban areas.



Similar Birds



BLACK-CAPPED CHICKADEE
Larger body; white-edged greater wing coverts; broad white markings on edge of secondaries; more boldly edged tertials with darker centers; black bib extends farther down chest; olive flanks; lower, slower *chick-a-dee-dee-dee* call; typically gives 2- to 3-note *fee-bee* or *fee-bee-be* song.



Flight Pattern



Short weak fluttering flight with rapid beats; sometimes in longer flights folds wings to sides after several quick strokes.

- **FEEDERS AND BIRDHOUSES** Suet, doughnuts, and sunflower seeds. Nests in birdhouses.
- **CONSERVATION** Sometimes competes for nest sites with House Wren, especially in suburban areas.

Nest Identification

Shape  

Location   

Lined with plant material, including grass and moss, as well as feathers and hair

- in tree or snag 1–23 feet above ground or in man-made nest box
- built by both sexes
- 5–8 white eggs with reddish brown markings; oval to short oval, 0.6 x 0.45 inches.

Plumage Sexes similar	Habitat   	Migration Nonmigratory	Weight 0.4 ounce
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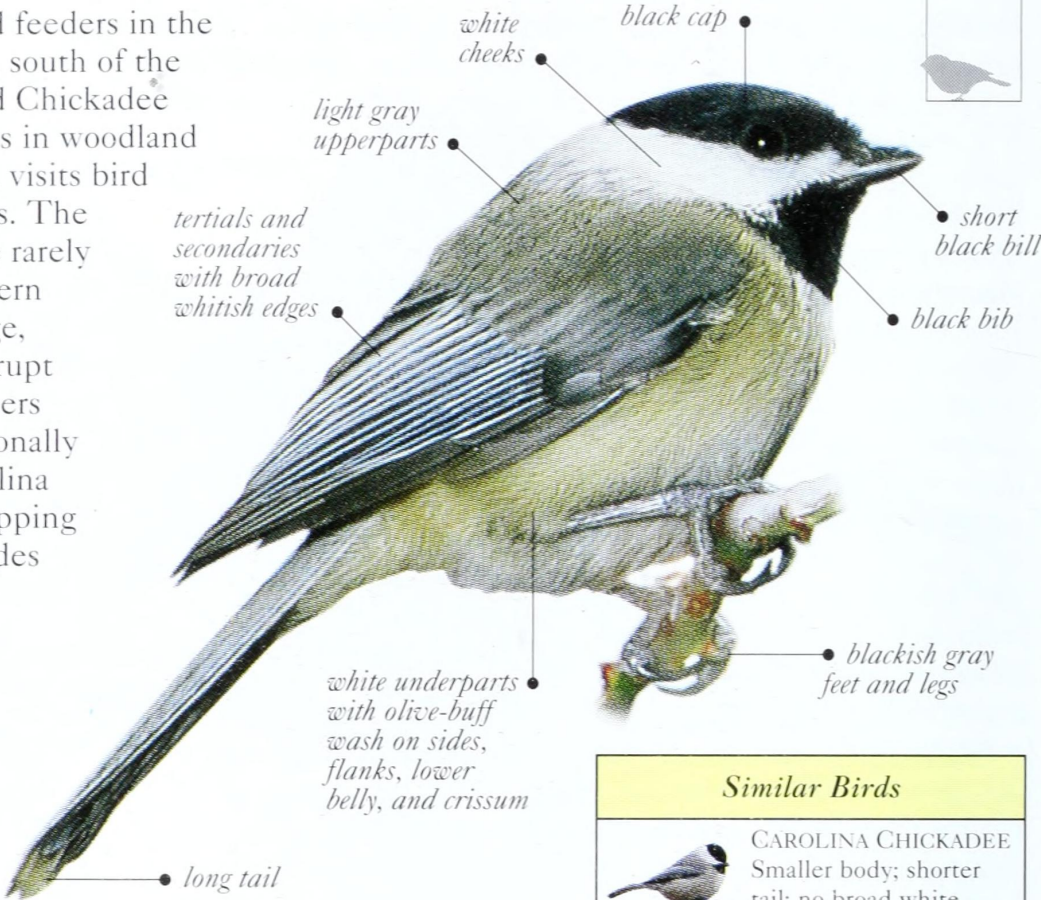
DATE _____ TIME _____ LOCATION _____

Family PARIDAE	Species <i>Poecile atricapilla</i>	Length 5.5 inches	Wingspan 7.5–8.5 inches
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BLACK-CAPPED CHICKADEE

A common visitor at bird feeders in the northern US and Canada south of the tundra, the Black-capped Chickadee leaves its nesting grounds in woodland areas during autumn and visits bird feeders in suburban areas. The Black-capped Chickadee rarely moves beyond the southern edge of its breeding range, but occasionally it will irrupt southward in large numbers during autumn. It occasionally hybridizes with the Carolina Chickadee, in the overlapping zone, producing intergrades in size and song.

- **SONG** Lower huskier more drawn-out *chick-a-dee-dee-dee* than that of Carolina Chickadee. Song is clear fluted *fee-bee* or *fee-bee-be*.
- **BEHAVIOR** Pairs; forms small groups after nesting season. Often joins mixed foraging flocks with other species. Tame. Forages among twigs and branches and under bark, often clinging upside down, for insects, and insect eggs. Eats seeds from conifers, bayberries, and other fruit. Holds large seeds between feet on perch and pounds seed coat open with beak. In winter eats mostly seeds. Incubating female hisses like a snake when nest cavity is disturbed.
- **BREEDING** Monogamous.
- **NESTING** Incubation 11–13 days by both sexes. Altricial young stay in nest 14–18 days. Brooded by female. Fed by both sexes. 1 brood per year.
- **POPULATION** Widespread and common in deciduous or mixed deciduous-conifer woodlands, often in riparian growth. Stable and possibly increasing.



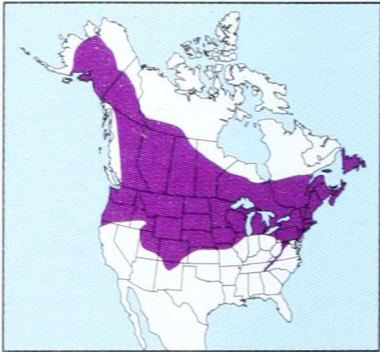
Similar Birds



CAROLINA CHICKADEE
Smaller body; shorter tail; no broad white edges on greater wing coverts or secondaries (grayish); cleaner cut lower edge on shorter black bib; less olive in flanks; higher-pitched, faster *chick-a-dee-dee-dee* call; 4-note *fee-bee-fee-bay* whistled song.



BOREAL CHICKADEE
Brown cap; gray-brown back and sides; more hoarse, drawling *chick-a-deer-deer* or *chick-chee-day-day* song.



Flight Pattern

Slow flitting short flights with rapid wing beats. On longer flights often folds wings to sides after several quick shallow strokes before repeating.

Nest Identification

Shape

Location

- **FEEDERS AND BIRDHOUSES** Doughnuts, peanut butter-and-cornmeal mixture, and sunflower seeds. Will nest in birdhouses.

Lined with vegetation, moss, feathers, hair, and insect cocoons • in deciduous tree, conifer, snag, or nest box 4–40 feet above ground • built by both sexes • 5–10 white eggs with fine reddish brown marks; oval to short oval, 0.6 x 0.45 inches.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 0.4 ounce
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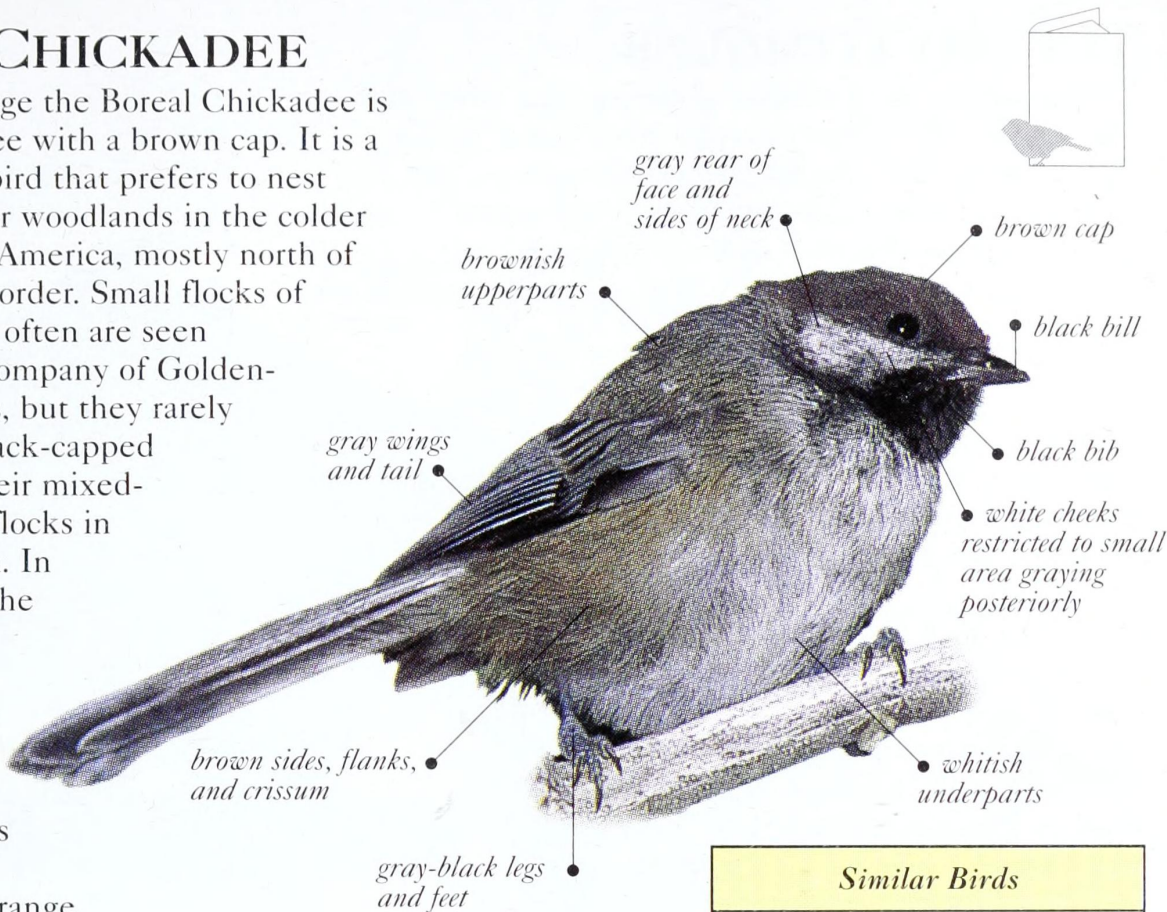
DATE _____ TIME _____ LOCATION _____

Family PARIDAE	Species <i>Poecile hudsonica</i>	Length 5.5 inches	Wingspan 8 inches
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BOREAL CHICKADEE

In most of its range the Boreal Chickadee is the only chickadee with a brown cap. It is a calm tame little bird that prefers to nest among the conifer woodlands in the colder regions of North America, mostly north of the US-Canada border. Small flocks of these chickadees often are seen traveling in the company of Golden-crowned Kinglets, but they rarely associate with Black-capped Chickadees in their mixed-species foraging flocks in the winter season. In some winters in the eastern parts of North America, some individuals may appear as much as hundreds of miles south of their normal breeding range. Males and females are alike.

- **SONG** Song is short and warbled. Call is a drawling drawn-out lazy *chick-a-dee-dee-dee* or *chick-chee-day-day*.
- **BEHAVIOR** A highly tame and sociable bird. Pairs in breeding season may stay together all year; they travel in small to medium flocks of 4–20 birds in nonbreeding season. Gleans much of its food from branches and needles of conifers and by picking seeds out of cones. Eats variety of insects and their larvae and eggs.
- **BREEDING** Monogamous. Small colonies.
- **NESTING** Incubation 11–16 days by female. Young altricial; brooded by female; remain in nest 18 days, fed by both sexes. 1 brood per year.
- **POPULATION** Fairly common in boreal conifer forests and in mixed conifer-deciduous woodlands.



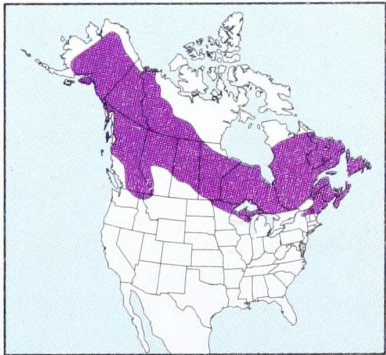
Similar Birds



GRAY-HEADED CHICKADEE
More extensive white cheeks; gray-brown cap; longer tail; paler flanks; gray-brown upperparts; pale edges on wing coverts; voice differs • western range.



BLACK-CAPPED CHICKADEE
Black cap; light gray upperparts; large white cheek patch extending onto hindneck; white-edged tertials and secondaries; different livelier call.



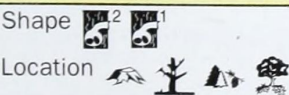
- **FEEDERS** In winter, Boreal Chickadees will come to a variety of feeders for a mixture of suet, peanut butter, cornmeal, and sunflower seeds.
- **CONSERVATION** Vulnerable to loss of habitat due to logging operations.

Flight Pattern



Weak fluttering short flights on rapidly beating wings. Alternates pulling wings to body with several quick shallow strokes.

Nest Identification



Filled with bark strips, mosses, plant down, lichen, and animal fur and hair • in live or dead conifer or used woodpecker hole • 1–10 feet above ground • built by female • 4–9 white eggs, with reddish brown specks; ovate to short ovate, some rather pointed, 0.6 x 0.45 inches.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 0.3 ounce
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DATE _____ TIME _____ LOCATION _____

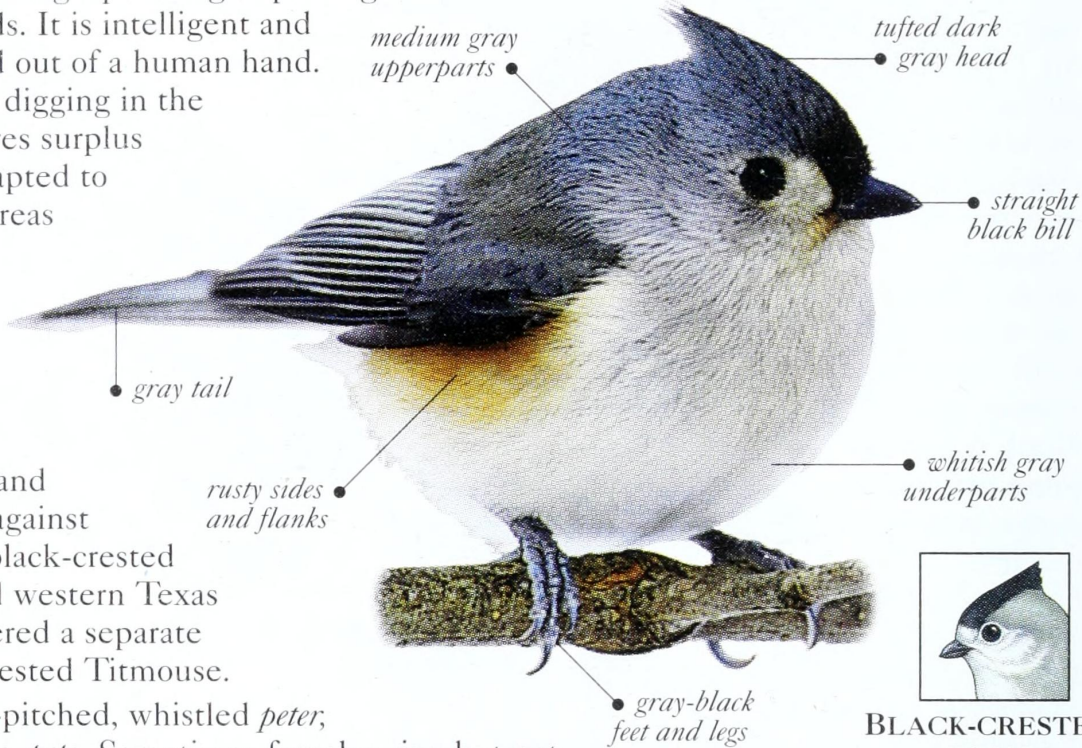
Family PARIDAE	Species <i>Baeolophus bicolor</i>	Length 6.5 inches	Wingspan 10.75 inches
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TUFTED TITMOUSE

Undaunted by the presence of people, this lively bird sometimes will swoop down and pluck out a human hair to use for its nest. The largest titmouse, it will fly toward people making squeaking or pishing sounds to attract birds. It is intelligent and may learn to eat food out of a human hand.

Often it can be seen digging in the ground, where it stores surplus sunflower seeds. Adapted to wooded residential areas with large shade trees and to bird feeders and nesting boxes, it has become a familiar yard bird with its jaunty crest and large black eyes set against gray plumage. The black-crested form in southern and western Texas was formerly considered a separate species, the Black-crested Titmouse.

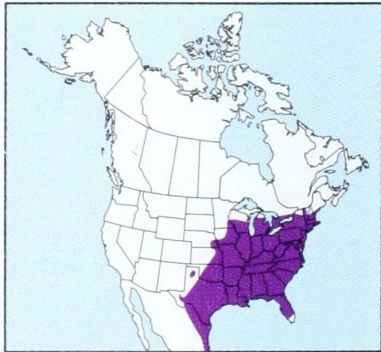
- **SONG** Bold, high-pitched, whistled *peter*; *peter*, *peter* or *peto*, *peto*, *peto*. Sometimes females sing but not as much as males. Calls vary from high-pitched, thin squeaky notes to low, harsh, fussy scolding notes.
- **BEHAVIOR** Relatively tame; social. Pairs or small family groups; joins mixed foraging flocks after nesting season. Inspects and forages in trees and shrubs for food, sometimes clinging upside down on trunk or branch tips. Uses bill to pound open nut, while anchoring it with feet. Eats insects and their larvae, spiders, snails, various berries, acorns and other nuts, and seeds. Male feeds female during courtship.
- **BREEDING** Monogamous. Solitary nester. Mates for life.
- **NESTING** Incubation 13–14 days by female. Altricial young stay in nest 15–18 days. Brooded by female. Fed by both sexes. 1 brood per year, 2 in the South.



Similar Birds



PHAIÑOPEPLA ♀
Small range overlap in Big Bend area of Texas with black-crested form • larger; medium sooty gray overall; crested; darker gray wing edges; white on wing coverts and tertials; whitish gray patch at base of primaries flashes in flight; long, rounded tail.



Flight Pattern

Weak fluttering short flights with shallow rapid wing beats. Flitting flight with several quick wing beats alternating with wings drawn to sides, then repeated.

Nest Identification

Shape

Location

- **POPULATION** Abundant to common in forests, parks, and shaded suburbs.
- **FEEDERS AND BIRDHOUSES** Feeders with sunflower seeds, suet, cornmeal, and peanut butter. Will nest in man-made birdhouses.

Lined with bark, leaves, soft grass and moss, snakeskin, and bits of animal fur and hair • in natural cavity, bird box, or woodpecker hole 3–90 feet above ground • built by female • 4–8 white to creamy white eggs speckled with browns, occasionally wreathed; short subelliptical, 0.7 x 0.55 inches.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 0.8 ounce
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DATE _____ TIME _____ LOCATION _____

Family REMIZIDAE

Species *Auriparus flaviceps*

Length 4.5 inches

Wingspan 7 inches

VERDIN

Sometimes using as many as two thousand twigs, this tiny bird builds an elaborate sphere-shaped nest up to eight inches in diameter. The spherical nest has thick walls to insulate it from the hot desert sun and the cold desert nights. Nests built early in the season have their side entrances facing away from the cooling winds to conserve heat; those built later in the nesting season face the direction of the wind for its cooling breezes. As it often nests ten or more miles away from any water source, this bird eats fruit and insects to obtain needed moisture. Brownish gray juveniles lack the yellow head and chestnut shoulder patch of the adults and, except for their shorter tail, could be mistaken for a Bushtit.

- **SONG** Song is a melancholy whistled *tswee-swee, tswee*, 3 notes with the second note higher. Call is a quick *tea-nip*.
- **BEHAVIOR** Solitary or in pairs; small family groups after breeding season. May join mixed-species foraging flocks in winter. Actively forages for food among twigs and leaves. Sometimes hangs upside down, clinging to limb or trunk like a chickadee. Eats insects, their larvae and eggs, spiders, wild berries, and fruit. Male builds several nests in his territory; female selects one, which may be used several times for nesting, even in succeeding years. Nests often are used for night roosts and as shelters from noonday sun, and some are constructed for just that purpose.
- **BREEDING** Monogamous. Solitary nester.

- **NESTING** Incubation 10 days by female. Young altricial; brooded by female; stay in nest 21 days, fed by both sexes. 2 broods per year.
- **POPULATION** Common in desert and arid scrub, especially mesquite and creosote bush.

Flight Pattern



Somewhat weak fluttering flight with several fast shallow wing strokes followed by wings pulled in to sides; repeated. Flights often short duration, bush to bush.

Nest Identification

Shape



Location



Mass of sticks, leaves, and grasses held together with spider web and cocoon material, with lining of grasses, feathers, and plant down • well out toward tip of branch or in fork of shrubby tree, cactus, or bush, 2–20 feet above ground • built by male • 3–6 bluish green to greenish white eggs, with reddish brown speckles; oval to short oval, 0.6 inch long.

Plumage Sexes similar

Habitat

Migration Nonmigratory

Weight 0.2 ounce

DATE _____ TIME _____ LOCATION _____

yellow head and throat

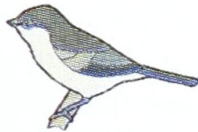
grayish upperparts

short black bill

black legs and feet

chestnut-red shoulder patches

grayish white underparts



JUVENILE

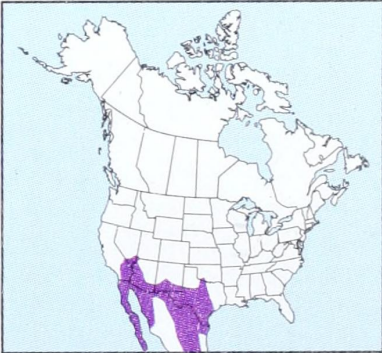
Similar Birds



BUSHTIT
Juveniles • grayer upperparts; longer tail; brownish cheek patch or crown; usually in staggered flocks; prefer oak scrub to desert basins • only in the West.



LUCY'S WARBLER
Pale gray overall • male has rusty red crown and rump patch • female and juvenile have chestnut or buffy rump patch respectively.

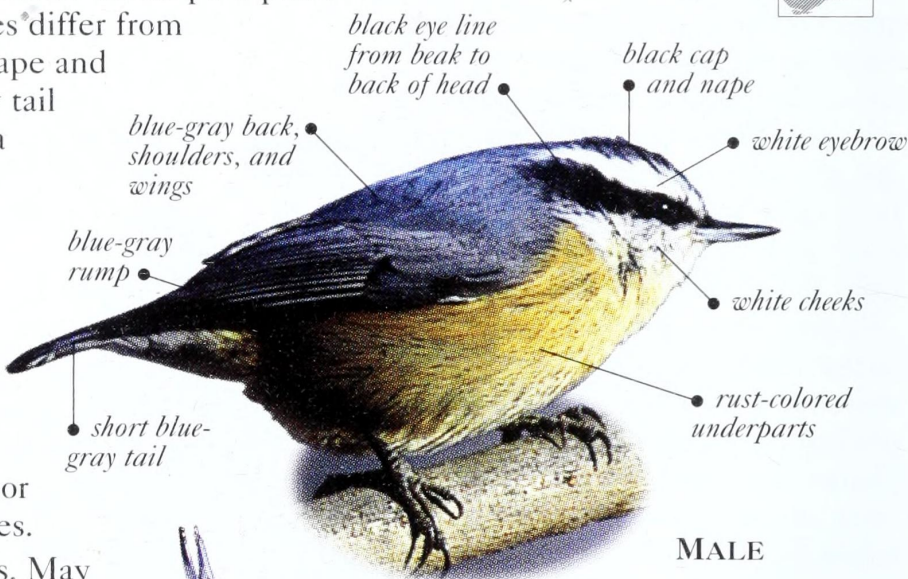


Family SITTIDAE	Species <i>Sitta canadensis</i>	Length 4.5 inches	Wingspan 8 inches
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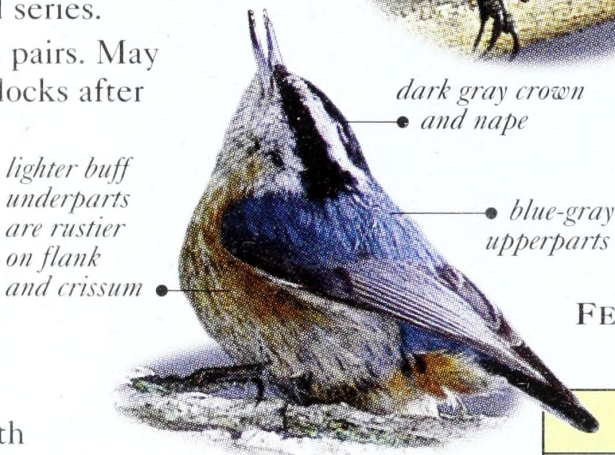
RED-BREASTED NUTHATCH

This bird will often eat from the human hand. To protect young from predators, male and female smear pine pitch around the nest entrance. Females² differ from males by the dark gray cap and nape and lighter underparts. The blue-gray tail spread in display or flight shows a white subterminal band. Winter range varies yearly, particularly in the East; this sedentary species remains in its breeding range as long as winter food supplies can support it.

- **SONG** Calls are nasal and high pitched, resembling the sound of a tiny tin horn, *ank, ink,* or *enk,* often repeated in a rapid series.
- **BEHAVIOR** Solitary or in pairs. May join mixed-species feeding flocks after breeding season. Climbs up and down tree trunks, often headfirst, and walks on the underside of limbs. Forages for conifer seeds, nuts, and some insects by gleaning them from bark or foliage; wedges food in tree bark crevices and pounds with bill to break shell or exoskeleton. Male courts female by feeding her, also by turning his back to her and lifting his head and tail, raising his back feathers and drooping his wings, swaying from side to side. Irruptive migrant.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 12 days by female. Young altricial; brooded by female; stay in nest 14–21 days, fed by both sexes. 1 brood per year.
- **POPULATION** Fairly common to common in boreal and subalpine conifer forests and mixed conifer-deciduous northern



MALE

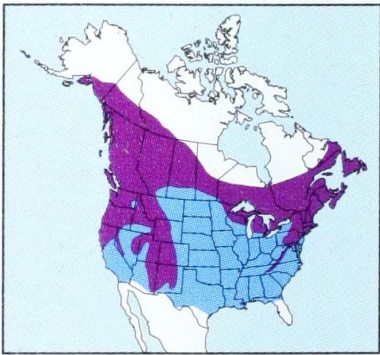


FEMALE

Similar Birds



WHITE-BREASTED NUTHATCH
Larger; white face lacks black eye line; white underparts with rusty wash on flanks and crissum; blue-gray tail with black outer tail feathers edged and tipped white; voice differs.



Flight Pattern

Somewhat weak fluttering flight of short duration, with rapid wing strokes followed by brief folding of wings to sides; repeated.

Nest Identification

Shape

Location

montane forests. Stable. Eastern breeding range currently expanding southward.

- **FEEDERS** Sunflower seeds, peanut butter, and suet.
- **CONSERVATION** Vulnerable to habitat loss due to logging operations.

Lined with shredded bark, grass, and roots • usually 5–40 feet above ground (but up to 120 feet) in conifer • built by both sexes, but female does most of work • 4–7 white to pinkish white eggs, marked with reddish browns; oval to short oval, 0.6 x 0.46 inches.

Plumage Sexes differ	Habitat	Migration Some migrate	Weight 0.4 ounce
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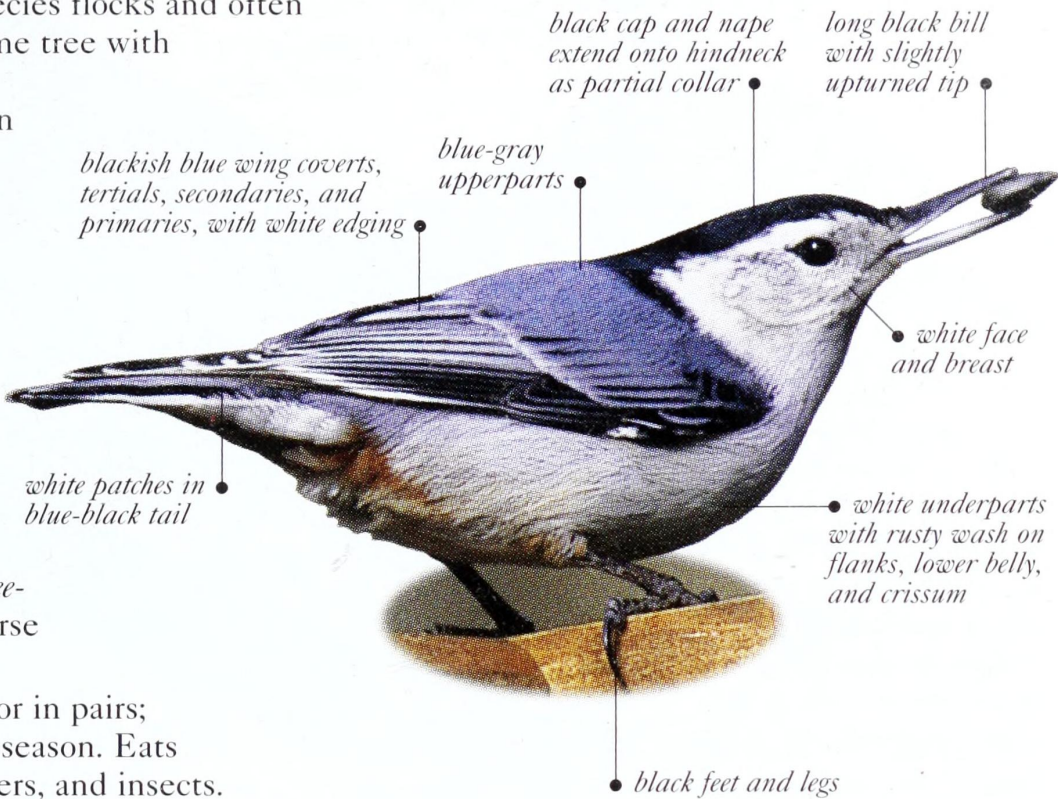
DATE _____ TIME _____ LOCATION _____

Family SITTIDAE	Species <i>Sitta carolinensis</i>	Length 5–6 inches	Wingspan 9–11 inches
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WHITE-BREASTED NUTHATCH

The largest and most widespread of the North American nuthatches, this nimble bird can balance upside down on tree trunks, catch a falling nut in midair, and rapidly hop down skinny branches. In winter it joins mixed-species flocks and often feeds together in the same tree with chickadees, Downy Woodpeckers, and Brown Creepers. It is quick to accept bird feeders, and will often attempt to intimidate other avian visitors by spreading its wings and tail and swaying back and forth. Females in the Northeast have dark blue-gray crowns.

- **SONG** Sings an ascending *wee-wee-wee-wee-wee-wee-wee*. Call is a hoarse *yank-yank-yank*.
- **BEHAVIOR** Solitary or in pairs; sociable in nonbreeding season. Eats various nuts, seeds, spiders, and insects. Inspects trees with head pointed downward and circles around and underneath limb in search of food. Spends most of its time in trees. Roosts in tree cavities in the winter; often roosts in crevices of bark in summer, some sleeping in the head down, tail up position.
- **BREEDING** Monogamous. Solitary. Sometimes known to form small colonies.
- **NESTING** Incubation 12 days by female. Young altricial; brooded by female; stay in nest 14 days, fed by both sexes. 1 brood per year.
- **POPULATION** Common in deciduous woodlots and in mixed coniferous-deciduous woods in the North and West.



Similar Birds



♂ **RED-BREASTED NUTHATCH**
Smaller; white face broken by long, black eye stripe; uniform rusty chestnut underparts; smaller bill; voice differs.



♀

Flight Pattern

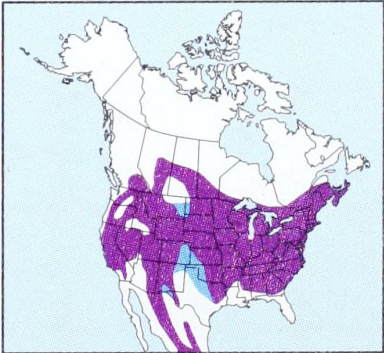


Weak fluttering flight of short duration; several rapid wing beats alternated with wings drawn to sides; repeated.

Nest Identification

Shape	 ² 	Location	   
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- **FEEDERS AND BIRDHOUSES** Comes to feeders for suet and/or seeds; will nest in nest boxes.
- **CONSERVATION** Vulnerable to habitat loss due to logging operations.



Lined with bark shreds, hair, and feathers • natural cavity, knothole, woodpecker's hole, or bird box, 10–60 feet above ground • built by both sexes; female does more • 3–10 white to pinkish eggs, with brown, gray, purple, and red blotches; oval to short oval, 0.8 x 0.56 inches.

Plumage Sexes similar	Habitat   	Migration Nonmigratory	Weight 0.7 ounce
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DATE _____ TIME _____ LOCATION _____

Family SITTIDAE	Species <i>Sitta pusilla</i>	Length 4.5 inches	Wingspan 8.5 inches
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BROWN-HEADED NUTHATCH

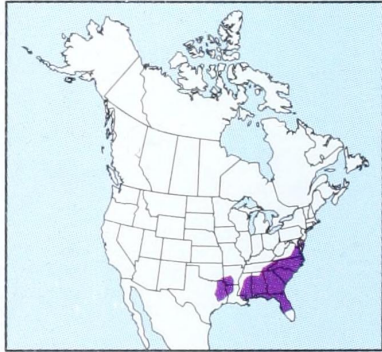
The only North American songbird to use a tool while foraging, this nuthatch lives in the southern woodlands, especially in open stands of pine. It sometimes holds a piece of bark in its bill and uses it to pry up another bark chip, uncovering insects. This bird travels in small flocks of family groups. Often foraging high in the trees and well out toward the tips of the branches, it would be easily overlooked but for its constant peeping calls and twittering.

- **SONG** Has various squeaky *bit-bit-bit* calls and a *dee-dee-dee*. During courtship, sings *pri-u, de-u, de-u*, like a squeaky toy.
- **BEHAVIOR** In pairs or small family groups, often including an unmated male helper that helps excavate the nesting cavity and feed female and young. Forages over, around, and up and down branches, small twigs, and trunks, even hanging upside down. Picks seeds from pinecones. Eats insects and their larvae and spiders. Caches pine seeds. Forms mixed-species foraging flocks with chickadees, titmice, kinglets, warblers, woodpeckers, and others.
- **BREEDING** Monogamous. Cooperative.
- **NESTING** Incubation 14 days by female. Young altricial; brooded by female; stay in nest 18–19 days, fed by both sexes and extra birds. 1 brood per year.
- **POPULATION** Fairly common in mature open pine forests and mixed pine-deciduous woodlands along the coastal plain.
- **FEEDERS AND BIRDHOUSES** Will come to eat at bird feeders and will nest in birdhouses built for them.



Similar Birds

- ♂ **RED-BREASTED NUTHATCH**
Larger; black cap; white face with long black eye stripe; rusty chestnut underparts; black nape; voice differs.
- ♀ **WHITE-BREASTED NUTHATCH**
Larger; black cap; completely white face, breast, and underparts; rusty-washed flanks and crissum.



Flight Pattern

Weak fluttering flight of short duration, with series of rapid wing beats followed by wings pulled in to sides; repeated.

Nest Identification

Shape

Location

- **CONSERVATION** Vulnerable to habitat loss due to the cutting of pine forests and the replacement with pine plantations that are on short harvest rotations.

Soft bark shreds, wood chips, grasses, wool, hair, and feathers • in dead or live tree, bird box, stump, or old post, usually 2–12 feet above ground (but up to 90 feet) • built by both sexes and extra birds • 3–9 white or off-white eggs, with reddish brown speckles; short subelliptical to short oval, 0.6 x 0.45 inches.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 0.4 ounce
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DATE _____ TIME _____ LOCATION _____

Family CERTHIIDAE

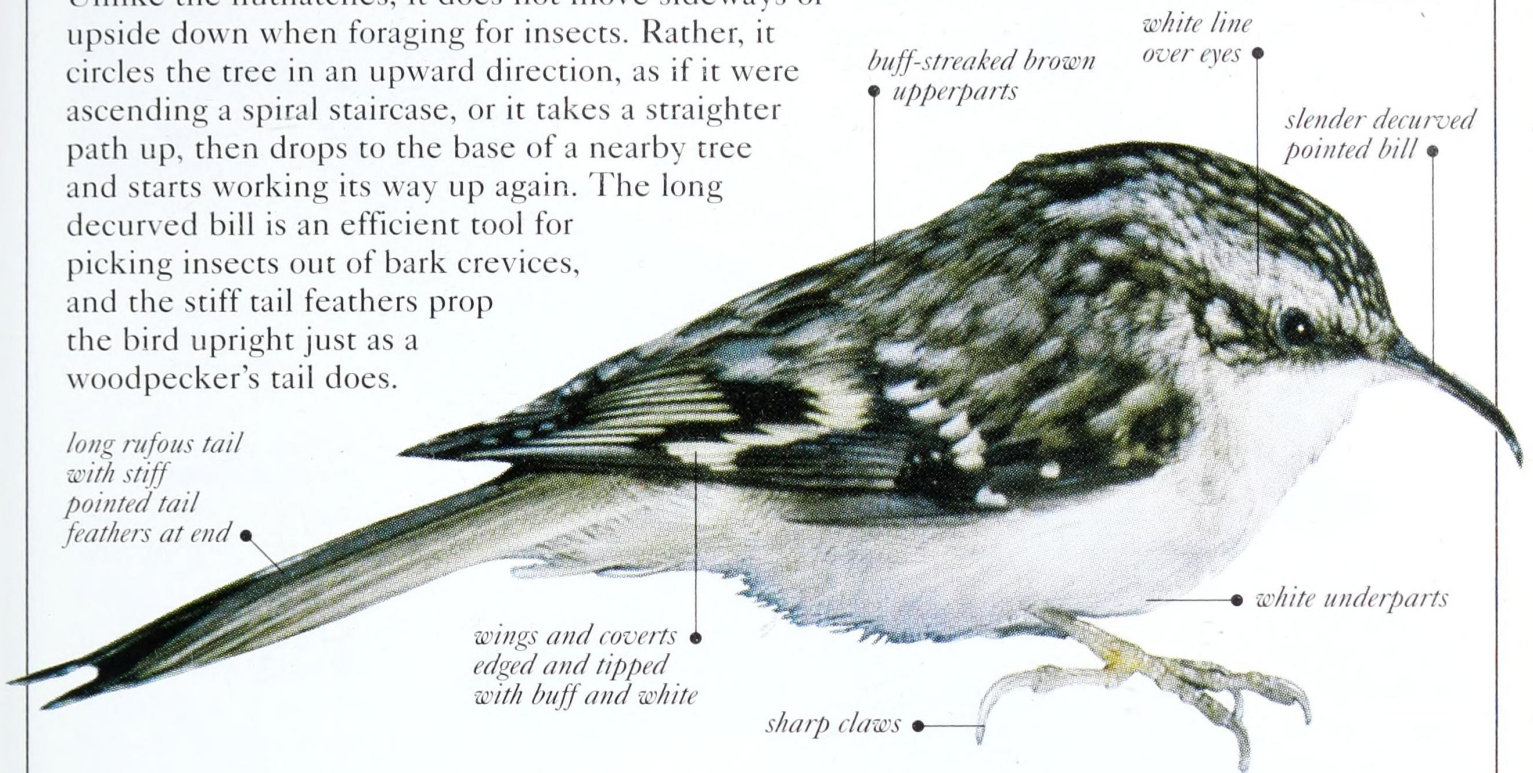
Species *Certhia americana*

Length 5.25 inches

Wingspan 7–8 inches

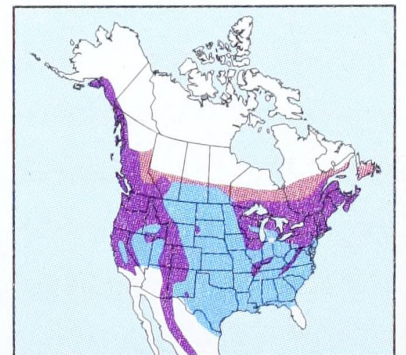
BROWN CREEPER

This tree-dwelling bird roosts by hanging onto a tree trunk or the side of a house with its sharp claws. Unlike the nuthatches, it does not move sideways or upside down when foraging for insects. Rather, it circles the tree in an upward direction, as if it were ascending a spiral staircase, or it takes a straighter path up, then drops to the base of a nearby tree and starts working its way up again. The long decurved bill is an efficient tool for picking insects out of bark crevices, and the stiff tail feathers prop the bird upright just as a woodpecker's tail does.



- **SONG** Call is a soft musical *see-see-titi-see*, similar to that of the Golden-crowned Kinglet, but thinner. Call note is a soft thin *see*.
- **BEHAVIOR** Solitary or in pairs. Tame. Often joins mixed-species foraging flocks in winter. Forages for food by spiraling up tree, but does not move down or sideways. Hops back occasionally, but then moves on up. Eats various insects, larvae, seeds, and some nuts. Well camouflaged and difficult to spot; often escapes predators by pressing its body tightly against tree, spreading wings and tail, and remaining motionless. Fledglings roost in tight circle with heads in center of ring.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 13–17 days by female. Young altricial; brooded by female; stay in nest 13–16 days. Fed by both sexes. 1 brood per year.
- **POPULATION** Fairly common in pine, spruce-fir, mixed coniferous-deciduous, swampy forests; declining in some areas.
- **FEEDERS** Will come to feeders for mixture of nuts, peanut butter, suet, and cornmeal. Mixture can be put directly on tree trunk.

- **CONSERVATION** Nesting area threatened due to cutting of forest habitat.



Flight Pattern



Strong direct flights of short duration with rapid shallow wing beats.

Nest Identification

Shape

Location

Twigs, moss, conifer needles, pieces of bark, and silk, lined with shredded bark and feathers • in cavity of dead tree, or beneath piece of bark against tree, 5–50 feet above ground • built by both sexes; female does more • 4–8 white eggs, sparsely flecked with reddish brown and often wreathed; oval to short oval, 0.6 x 0.46 inches.

Plumage Sexes similar

Habitat

Migration Migratory

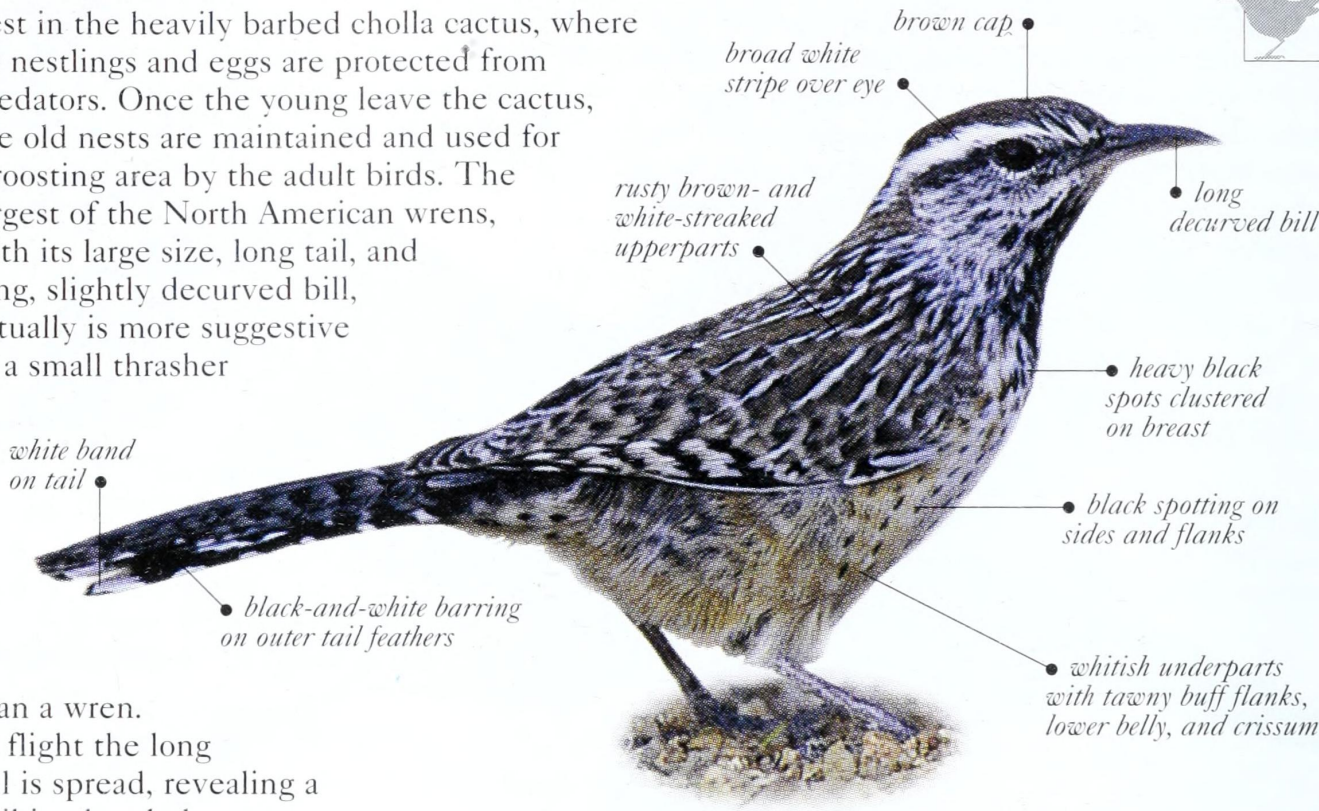
Weight 0.3 ounce

DATE _____ TIME _____ LOCATION _____

Family	TROGLODYTIDAE	Species	<i>Campylorhynchus brunneicapillus</i>	Length	8.5 inches	Wingspan	10.75 inches
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CACTUS WREN

The Arizona state bird often builds its domed nest in the heavily barbed cholla cactus, where its nestlings and eggs are protected from predators. Once the young leave the cactus, the old nests are maintained and used for a roosting area by the adult birds. The largest of the North American wrens, with its large size, long tail, and long, slightly decurved bill, actually is more suggestive of a small thrasher



than a wren. In flight the long tail is spread, revealing a striking banded pattern.

- **SONG** A quick low guttural *guah guah guah guah guah*, etc., gaining in speed toward the end.
- **BEHAVIOR** Pairs or small family groups. Forages for food on ground by probing and lifting up objects with bill. Gleans foliage and branches for insects, spiders, small frogs, small reptiles, nectar, and some fruits. More than other wrens, 15–20 percent of diet is fruit, mostly from cactus. When disturbed, sometimes runs on ground like a thrasher, rather than flying.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 16 days by female. Young altricial; brooded by female; stay in nest 19–23 days, fed by both sexes. 2–3 broods per year.
- **POPULATION** Common and widespread in semidesert and desert communities with large cactus, arid hillsides, and gravelly bottomed valleys. Declining in parts of Texas and California.
- **FEEDERS** Will come to feeders for pieces of bread and slices of potato or raw apple.

Flight Pattern

Weak direct flight. Holds tail partially spread when flying.

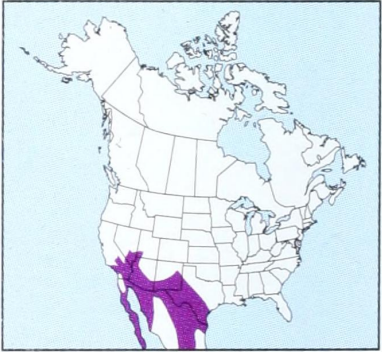
Nest Identification

Shape Location

- **CONSERVATION** Development of desert communities for housing, golf courses, and agriculture decrease and fragment the available habitat.

Similar Birds

SAGE THRASHER
Grayer; unstriped barring on wings and back; brown-streaked underparts; spots not clustered on breast; white on tail corners only; shorter almost straight bill.



Plumage	Sexes similar	Habitat		Migration	Nonmigratory	Weight	1.4 ounces
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DATE _____ TIME _____ LOCATION _____

Family TROGLODYTIDAE	Species <i>Salpinctes obsoletus</i>	Length 6 inches	Wingspan 9 inches
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ROCK WREN

This bird frequents more arid and barren terrain than its cousin, the Canyon Wren. Its grayish brown color serves as a camouflage, but the male often can be spotted when he hops to the top of a boulder to sing or to admonish intruders. The nest is built in a rock crevice, but a trail of tiny rocks leading to the opening is a clue to its location.

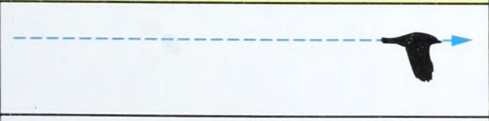
Individual males sing many variations of their songs and of those of neighboring males; some have more than 100 songs in their repertoire. When the black-barred cinnamon tail is flicked open it reveals a thick blackish subterminal band and buffy tips.

- **SONG** Sings a mix of buzzy trills, *keree-keree-keree, chair, chair, chair, deedle, deedle, deedle, tur, tur, tur, keree*. Call is a raspy *tic-keer*.
- **BEHAVIOR** Solitary or in pairs. Hops around, among, and between rocks. Bobs body and frequently cocks tail upward. Sings from conspicuous perches on rocks; forages for food around and between rocks. Eats insects, spiders, and various larvae. Often lines pathways to nests with hundreds of small pebbles and small animal bones.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Breeding biology poorly known, but incubation estimated at 12–14 days by female. Young altricial; brooded by female; remain in nest estimated 14 days, fed by both sexes.

1–2 broods per year.

- **POPULATION** Fairly common in canyons, cliffs, and valleys with rocky outcroppings in arid and semiarid regions. Casual to accidental in fall and winter in the East.

Flight Pattern



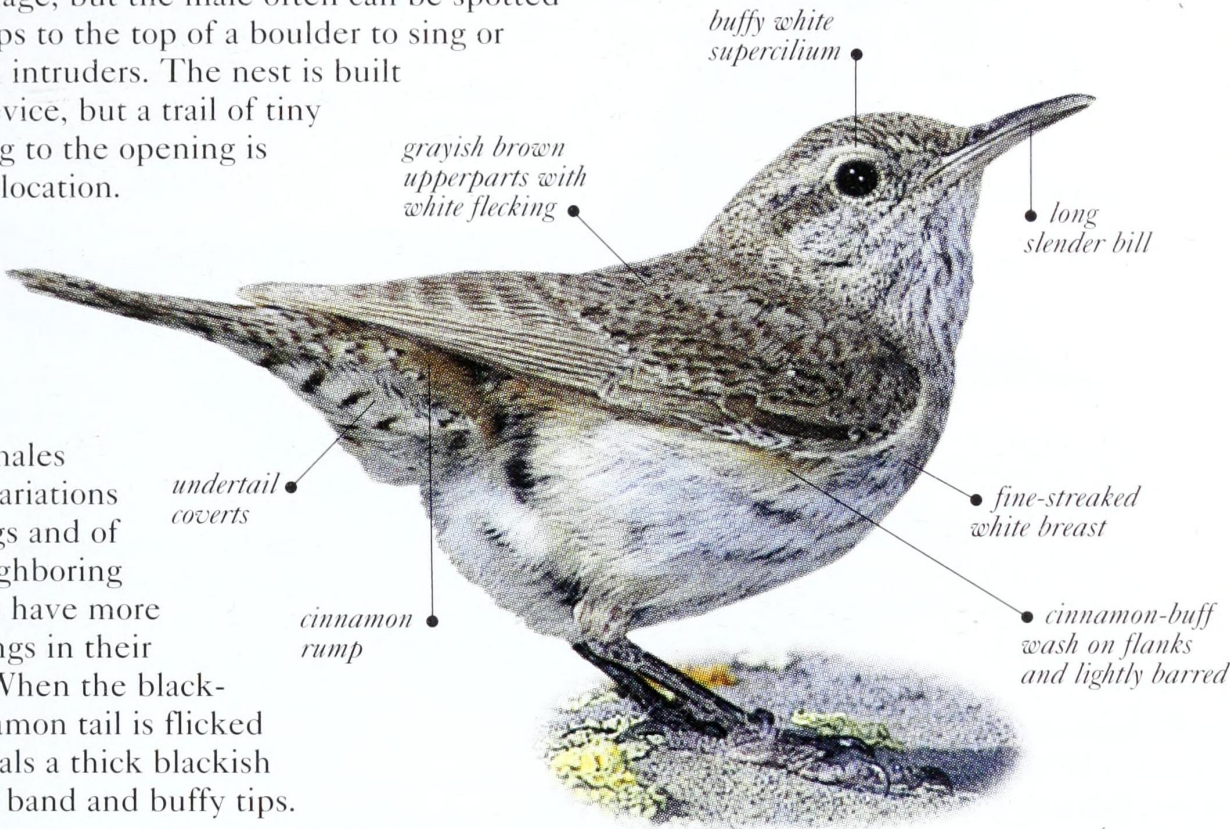
Weak fluttering direct flights, often short, on shallowly beating wings.

Nest Identification

Shape  

Location    

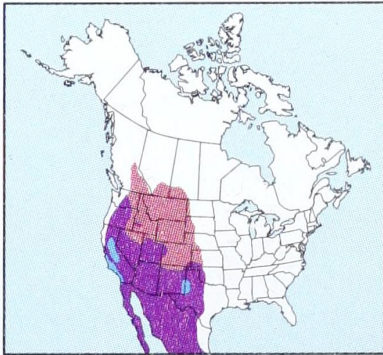
Rootlets, grasses, and various stems, with lining of feathers, various hair, and fur • in ridges of rock, crevices, burrows, banks, or even buildings • usually hidden by pile of rocks • built by both sexes • 4–10 white eggs, lightly flecked with reddish brown; oval, 0.7 inch long.



Similar Birds



CANYON WREN
Bright white throat and upper breast; rich red-brown belly and underparts; rusty red upperparts; long slightly decurved bill.



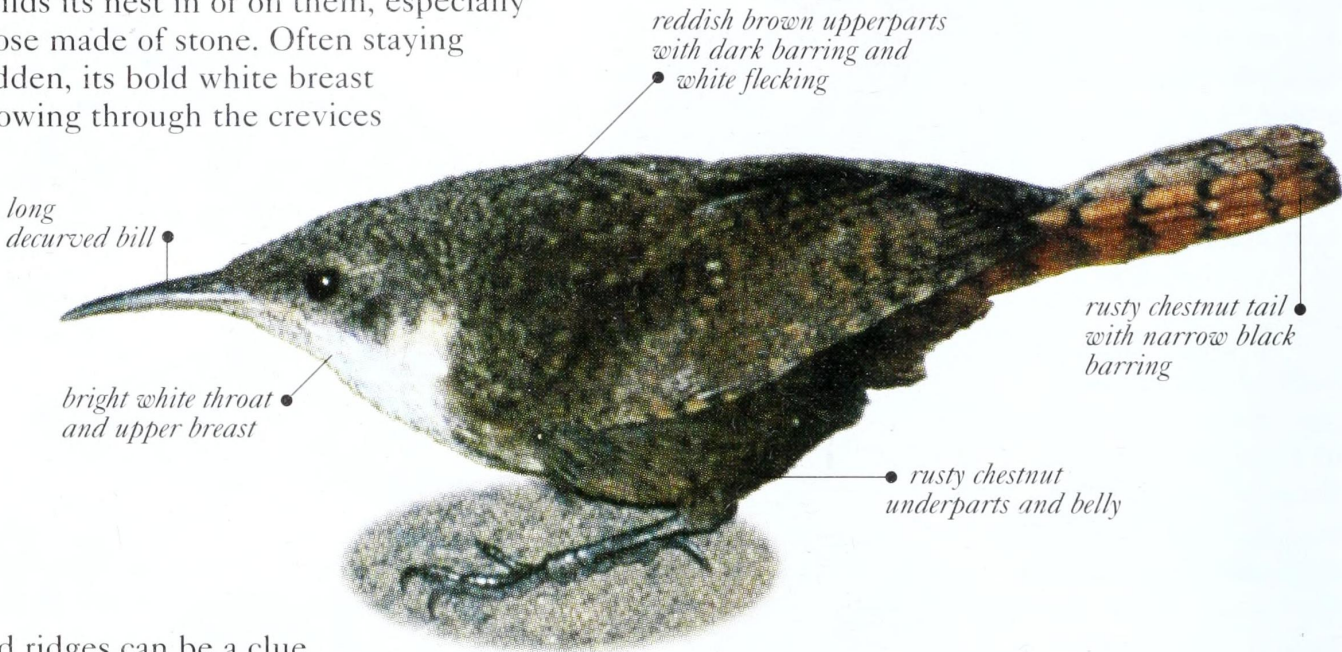
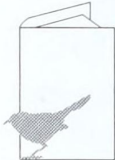
Plumage Sexes similar	Habitat  	Migration Migratory	Weight 0.6 ounce
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DATE _____ TIME _____ LOCATION _____

Family TROGLODYTIDAE	Species <i>Catherpes mexicanus</i>	Length 5.75 inches	Wingspan 7.5 inches
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CANYON WREN

True to its name, this energetic bird historically makes its home among the canyons, rocks, and caves in western North America. Adapting to man and his buildings, this wren now often builds its nest in or on them, especially those made of stone. Often staying hidden, its bold white breast showing through the crevices



and ridges can be a clue to this bird's presence; but it is more often heard than seen, for the male's loud happy-sounding song cascades and bounces along canyon walls.

- **SONG** A descending gushing liquid rain of notes, *peup, peup, peup tew tew tew tew*, ending with a buzzy *mew*. Call is an abrasive nasal *jeet*.
- **BEHAVIOR** Solitary or in pairs. Thoroughly investigates rocks to look for food; hopping over, around, under, and between, then singing, it gleans food from rock surfaces and crevices. Often bobs body like a Rock Wren and cocks tail over back. Very tame; will enter houses and ranch buildings. Eats mainly spiders and insects.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 12–18 days by female. Young altricial; brooded by female. Not known how long young stay in nest, but

fed by both sexes. 2 broods per year; sometimes 3 in the South.

- **POPULATION** Common in arid and semiarid rocky canyons, rocky outcroppings, and cliffs, often near water; also around stone buildings and stone chimneys.

Flight Pattern

Weak and fluttering direct flight, often of short duration, on shallowly beating wings.

Nest Identification

Shape  

Location    

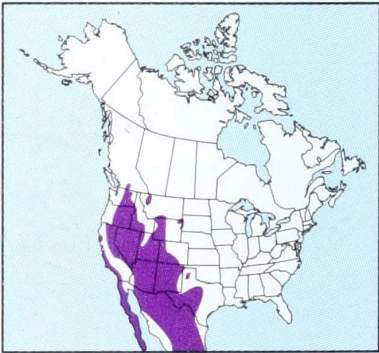
Sticks, leaves, mosses, and finer material, with lining of feathers and fur

- hidden in ridges of rocks or crevice, under stones, in holes, or sometimes in buildings
- built by both sexes
- 4–7 white eggs, lightly flecked with reddish brown; oval, 0.7 inch long.

Similar Birds



ROCK WREN
Gray-brown upperparts barred dark brown and flecked white; rufous rump; barred tail with rufous-tipped corners and black subterminal band; dark streaking on white breast; whitish underparts washed buff; slender, shorter, barely curved bill.



Plumage Sexes similar	Habitat  	Migration Nonmigratory	Weight 0.5 ounce
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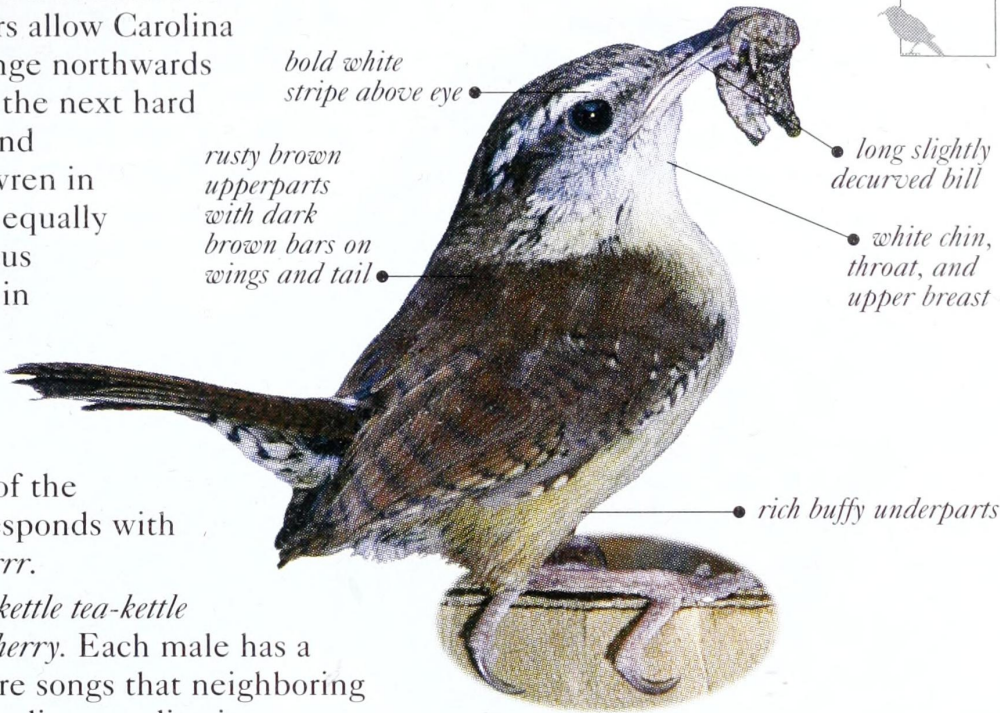
DATE _____ TIME _____ LOCATION _____

Family	TROGLODYTIDAE	Species	<i>Thryothorus ludovicianus</i>	Length	5.5 inches	Wingspan	7.75 inches
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CAROLINA WREN

South Carolina's state bird is sensitive to cold weather. Mild winters allow Carolina Wrens to expand their range northwards but most will not survive the next hard winter. Energetic, loud, and conspicuous, the largest wren in eastern North America is equally at home in moist deciduous woodlots, on the farm, or in shaded suburbs. Pairs stay together on their territories all year, and the male may sing at any time of day, any day of the year. The female often responds with a quick "growl" of *t-shihrrr*.

- **SONG** A bold clear *teakettle tea-kettle teakettle* or *cherry, cherry, cherry*. Each male has a repertoire of 25–40 or more songs that neighboring males match with a responding vocalization.
- **BEHAVIOR** Most often in pairs. Sings from exposed perch. Usually stays hidden in undergrowth, but will emerge if it hears squeaking noises. Pokes into every nook and cranny, hopping with tail cocked over back. Eats mostly insects, larvae, and insect eggs, but will take small vertebrates, snails, berries, and some fruits. Common around human habitation; enters open buildings to inspect dark recesses for insects or spiders. Builds its bulky nest in any container large enough to hold it, from coat pockets and boots to buckets, flower baskets, and mailboxes.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 12–14 days by female. Altricial young brooded by female; stay in nest 12–14 days, fed by both sexes but often tended by the male while female begins another clutch. 2 broods per year, often 3 in the South.
- **POPULATION** Common. Numbers decrease in northern range after harsh winters, but overall population stable except in the Northeast and Midwest where it is recorded as declining.



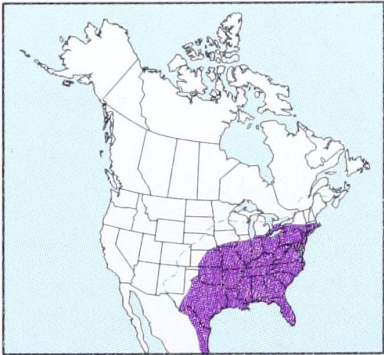
Similar Birds



BEWICK'S WREN
Whitish underparts; long rounded tail edged with white spots; reddish brown to gray-brown upperparts; long white eye stripe; frequently flips long tail; voice differs.



MARSH WREN
White-striped back; long white eye stripe; white underparts washed rufous-buff on sides and flanks; habitat and voice differ.



- **FEEDERS AND BIRDHOUSES** Suet and peanut butter. Will use nest boxes, often filling several with dummy nests.
- **CONSERVATION** Declines are of some concern.

Flight Pattern

Direct flight somewhat weak and fluttering with shallow rapid wing beats.

Nest Identification

Shape		Location	
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Stems, leaves, grasses, bark pieces, mosses, feathers, and snakeskin • cavity of tree, stump, or bank; sometimes old woodpecker hole, rafter, mailbox, bird box, or almost any cavity • built by both sexes • 4–8 white or light pink eggs, marked with brown; oval, 0.8 x 0.6 inches.

Plumage	Sexes similar	Habitat		Migration	Nonmigratory	Weight	0.7 ounce
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DATE _____ TIME _____ LOCATION _____

Family TROGLODYTIDAE	Species <i>Thryomanes bewickii</i>	Length 5.25 inches	Wingspan 7.25 inches
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BEWICK'S WREN

This bird ranges across most of the western United States eastward to the Appalachians. It usually builds its nest in natural cavities, but also will nest in mailboxes, baskets, cow skulls, or almost anything that provides shelter. A tame bird, it often resides near farms, homes, and small towns. For reasons still largely unknown, the Bewick's Wren is now rare in areas where it was once common. Since at least the 1960s, populations have seriously declined east of the Mississippi River. Color varies geographically from mousy gray-brown in the West to rusty brown in the East.

- **SONG** Male sings *chip, chip, chip, de-da-ah, tee-dee*, similar to the pattern of a Song Sparrow, but high, thin, buzzing, and variable, often ending in a thin trill. Call is a flat *jipp*.
- **BEHAVIOR** Often in pairs. Noisy and conspicuous; rather tame and bold. Holds tail high above back as it hops, often flicking it from side to side. Sings with head thrown back and tail depressed downward. Feeds mostly on ground or gleans food from trees. Eats mostly insects, but takes some spiders. Male builds several "dummy" nests in his territory; female chooses one and helps construct it.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 12–14 days by female. Young altricial; brooded by female; stay in nest 14 days, fed by both sexes. 1 brood per year; possibly 2 in the South.
- **POPULATION** Common in the West in open woodland, scrubland, and around farms and suburbs. Declining east of the



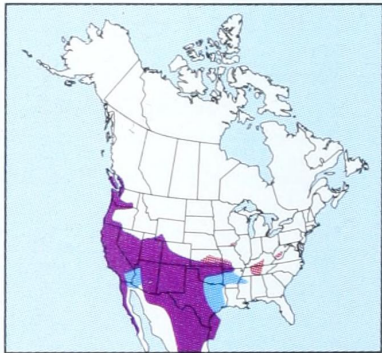
Similar Birds



CAROLINA WREN
Larger; rusty brown upperparts; buff underparts; shorter tail without white tips; song differs.



MARSH WREN
White-streaked back; rich brown upperparts; buff-washed sides and flanks; tail lacks white tips; different habitat and song.



Flight Pattern



Somewhat weak fluttering direct flight on shallow wing beats; often of short duration.

Nest Identification

Shape 

Location 

Rocky Mountains with most dramatic reductions happening east of the Mississippi River.

- **BIRDHOUSES** Will accept nest boxes.
- **CONSERVATION** Of special concern, especially in the East.

Twigs, mosses, bits of snakeskin, and grass, lined with feathers • in cavity of almost anything; often tree, man-made structure, hollow log, post, basket, etc. • built by both sexes • 4–11 white eggs with flecks of purple, brown, and gray; oval, 0.7 x 0.5 inches.

Plumage Sexes similar	Habitat 	Migration Eastern birds migrate	Weight 0.4 ounce
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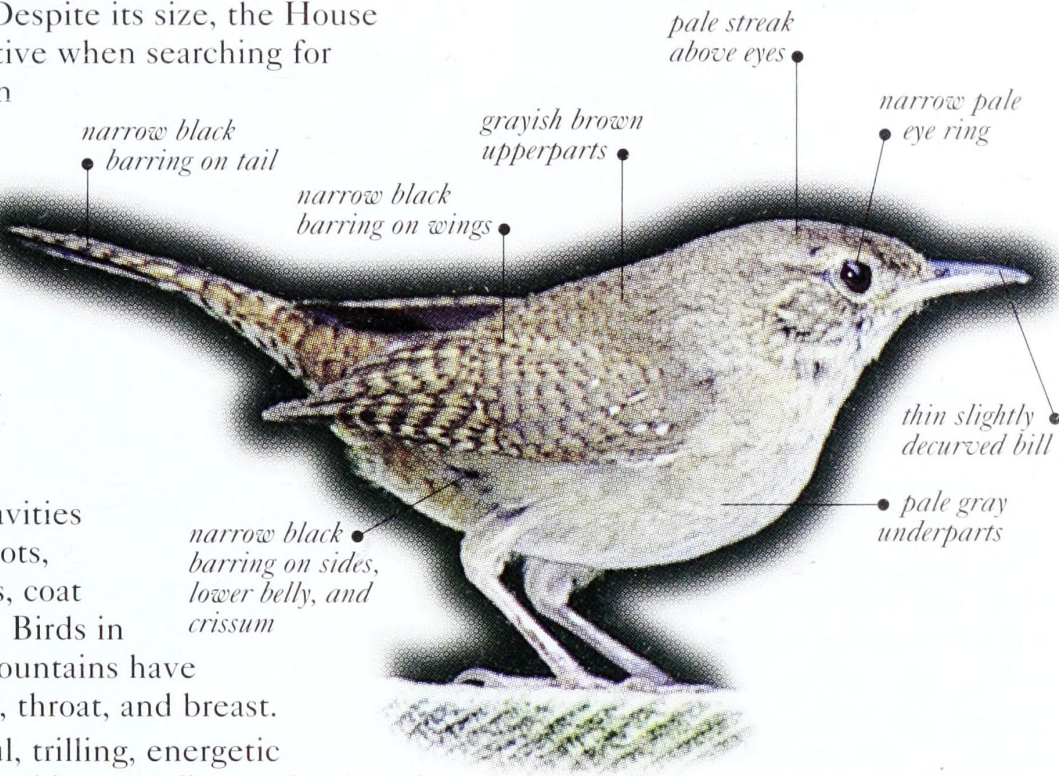
DATE _____ TIME _____ LOCATION _____

Family TROGLODYTIDAE	Species <i>Troglodytes aedon</i>	Length 4.75 inches	Wingspan 6–7 inches
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HOUSE WREN

This plain bird has a wide range, breeding from southern Canada to Mexico. However, even though its range spread southward in the East throughout most of the 20th century, it is not found now nesting in southeastern states. Despite its size, the House Wren is highly competitive when searching for nesting territory. It often invades nests of other wrens and songbirds, puncturing their eggs and killing their young. When it comes to selecting a nesting site, the male begins building dummy nests in almost any available cavity in his territory, from natural cavities and nesting boxes to boots, cans, buckets, toolboxes, coat pockets, and mailboxes. Birds in southeastern Arizona mountains have a buff superciliary mark, throat, and breast.

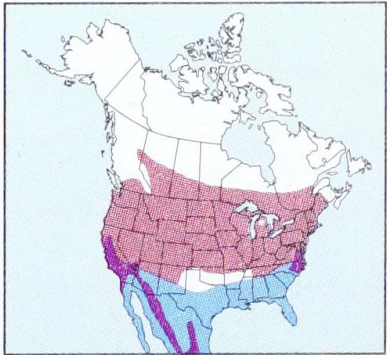
- **SONG** Sings beautiful, trilling, energetic flutelike melody delivered in a gurgling outburst and repeated at short intervals. Call is rough scolding *cheh-cheh*, often run into a scolding chatter.
- **BEHAVIOR** Solitary or in pairs. Loud and conspicuous. Relatively tame and bold. Often cocks tail upward. Eats various insects, spiders, millipedes, and some snails. Male starts several dummy nests in territory as part of courtship, then female joins him to inspect them and selects one to complete for nest. Highly migratory except in extreme southwestern US.
- **BREEDING** Usually monogamous but sometimes polygamous. Males occasionally have 2 mates at same time.
- **NESTING** Incubation 13–15 days by female. Altricial young stay in nest 12–18 days. Brooded by female. Fed by both sexes or female only. 2–3 broods per year.
- **POPULATION** Common in open woodlands, shrubs, farmlands, suburbs, gardens, and parks.



Similar Birds



WINTER WREN
Smaller; darker; heavier black barring on tail, flanks, and underparts; shorter tail; different voice.



Flight Pattern



Weak fluttering direct flight with rapid shallow wing beats.

Nest Identification

Shape 

Location   

Base made of sticks • lined with hair, feathers, cocoons, and fine material • almost anywhere in cavity of tree, bird box, abandoned hole or nest, cow skull, pipes, watering cans, etc. • male builds platform; female lines • 5–9 white eggs with brown flecks, occasionally wreathed; short rounded ovate to oval, 0.6 x 0.5 inches.

Plumage Sexes similar	Habitat   	Migration Most migrate	Weight 0.4 ounce
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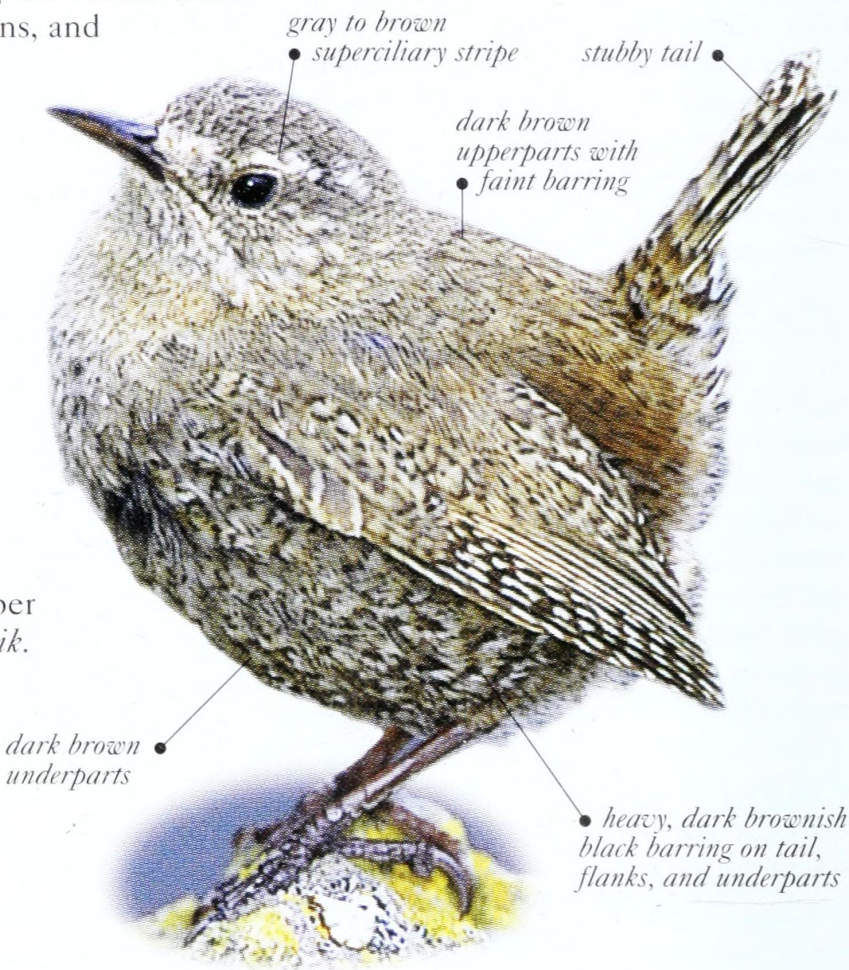
DATE _____ TIME _____ LOCATION _____

Family TROGLODYTIDAE	Species <i>Troglodytes troglodytes</i>	Length 4 inches	Wingspan 6 inches
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WINTER WREN

One of the smallest songbirds in North America, this short-tailed wren nests primarily in the coniferous forests of Canada and the northern US, but it also resides along the Pacific Coast from central California to the Aleutians, and in the Appalachians south to northern Georgia. It usually hides in thick undergrowth, but when excited it will fly up, perch, bob its head up and down, and deliver an alarm call or a rapid, cascading song that may last six to seven seconds and contain more than a hundred notes. This is the only member of the wren family found in Europe.

- **SONG** Male sings warbling melody of varied up-and-down notes with rapid trills; some notes high, thin, and silvery. Also has whisper song. Call is abrasive *chirrr* or *tik-tik-tik*.
- **BEHAVIOR** Often solitary; pairs in breeding season. Scampers on ground and in low trees while foraging, ducking in and out of root wads, in and around logs, into brush piles, and any opening or cranny large enough. Gleans food from surfaces, mostly insects, caterpillars, and berries. Sometimes will approach humans for bread crumbs. Bobs head and body and flicks tail, which is often cocked over back. Frequents habitats near water.
- **BREEDING** Polygamous.
- **NESTING** Incubation 12–16 days by female. Altricial young stay in nest 16–19 days, fed by female or both sexes. 1–2 broods per year.
- **POPULATION** Abundant. West Coast, northwest montane, and southern Appalachian populations permanent; others highly migratory.



Flight Pattern

Weak fluttering flights of short duration on rapidly beating wings.

Nest Identification

Shape

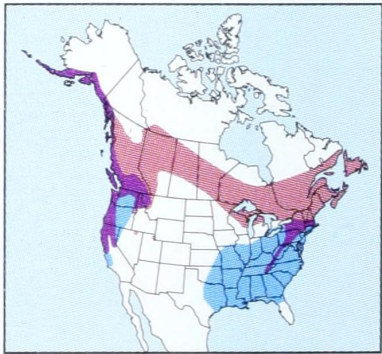
Location

- **BIRDHOUSES** Will roost in bird box.
- **CONSERVATION** Vulnerable to habitat loss caused by logging operations.

Cavity filled with platform of sticks, covered with moss and grass, lined with hair and feathers • in cavity of log or stump, under tree roots, and sometimes in building • 0–6 feet above ground • male builds 1–5 nests; female chooses • 4–7 white eggs with brown flecks concentrated at large end; oval, 0.65 x 0.5 inches.

Similar Birds

HOUSE WREN
Larger; longer tail; less prominent barring on belly, sides, and flanks; faint eye stripe; voice differs.



Plumage Sexes similar	Habitat	Migration Most migrate	Weight 0.3 ounce
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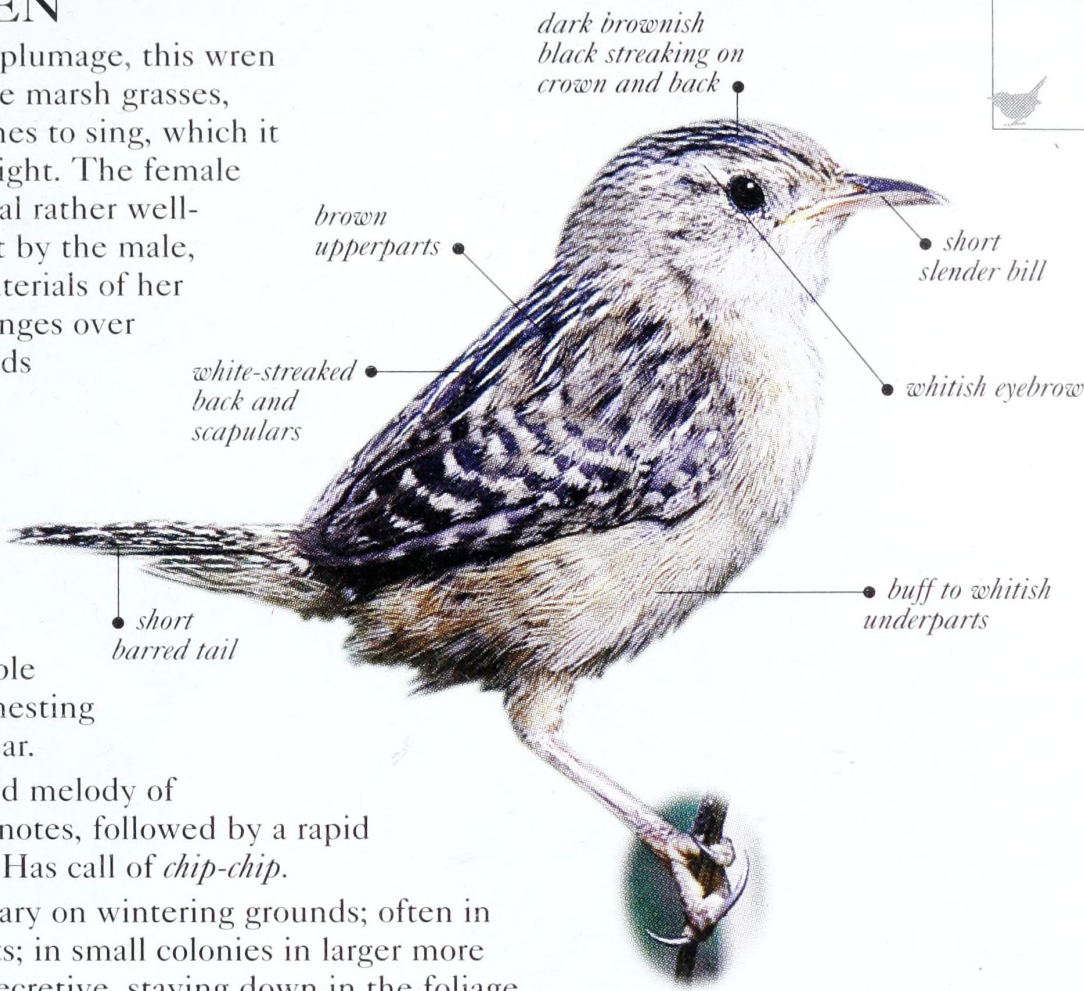
DATE _____ TIME _____ LOCATION _____

Family TROGLODYTIDAE	Species <i>Cistothorus platensis</i>	Length 4.5 inches	Wingspan 5.5–6 inches
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SEDGE WREN

Camouflaged by its plumage, this wren stays hidden in dense marsh grasses, except when it perches to sing, which it sometimes does at night. The female chooses one of several rather well-concealed nests built by the male, then lines it with materials of her choice. This wren ranges over much of the grasslands and marshlands of the central and north-central United States and south-central Canada, often going where the habitat is most suitable and often changing nesting areas from year to year.

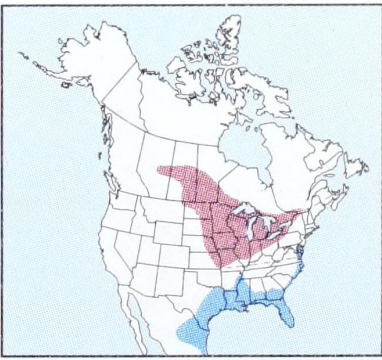
- **SONG** Sings a bold melody of single disconnected notes, followed by a rapid chatter of dry notes. Has call of *chip-chip*.
- **BEHAVIOR** Solitary on wintering grounds; often in pairs in small habitats; in small colonies in larger more favorable habitats. Secretive, staying down in the foliage except while singing, when it often ascends to a more exposed perch. Scampers on ground in wet meadows and in low brush, foraging for food. Eats mostly insects and spiders. Male builds several dummy nests and female chooses one; males will often destroy other bird's eggs when they discover them, including those of other Sedge Wrens.
- **BREEDING** Polygamous.
- **NESTING** Incubation 12–16 days by female. Young altricial; stay in nest 12–14 days. Fed by both sexes, but female does more. 2 broods per year.
- **POPULATION** Common in range but often very local; numbers may change from year to year. Rare in winter in New



Similar Birds



MARSH WREN
Larger; longer bill; dark crown; darker and more brown overall; unbarred rufous rump • western birds have duller, paler plumage with less distinct white streaking on back • eastern birds have richer browns and distinct back streaking.



Flight Pattern



Weak fluttering flight with shallow, rapid wing beats; alternating several wing strokes with wings being drawn to sides; repeated.

Nest Identification

Shape 

Location   

Mexico and casual to California in fall migration.

- **CONSERVATION** Neotropical migrant with some birds wintering in northeast Mexico. Vulnerable to habitat loss due to agriculture.

Stems, grasses, and sedges • lined with plant down, feathers, and fur • on grasses or reeds, usually near water or marshy area • 0–2 feet above ground in grass • male builds several nests; female selects one and lines • 4–8 white eggs; oval to pyriform, 0.6 x 0.47 inches.

Plumage Sexes similar	Habitat   	Migration Migratory	Weight 0.3 ounce
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DATE _____ TIME _____ LOCATION _____

Family TROGLODYTIDAE	Species <i>Cistothorus palustris</i>	Length 4.5–5 inches	Wingspan 5.5–7 inches
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MARSH WREN

This bird usually stays hidden, but its song can be heard over the reeds and cattails of the marshlands. The male builds several intricate globular-shaped nests, which have side doors; the female chooses one and adds the lining of shredded plants and feathers. The male often roosts in one of the dummy nests. Some males have more than one mate, with each one occupying a small section of his territory. The black-and-white streaking on the back of the Marsh Wren is less distinct in western birds.

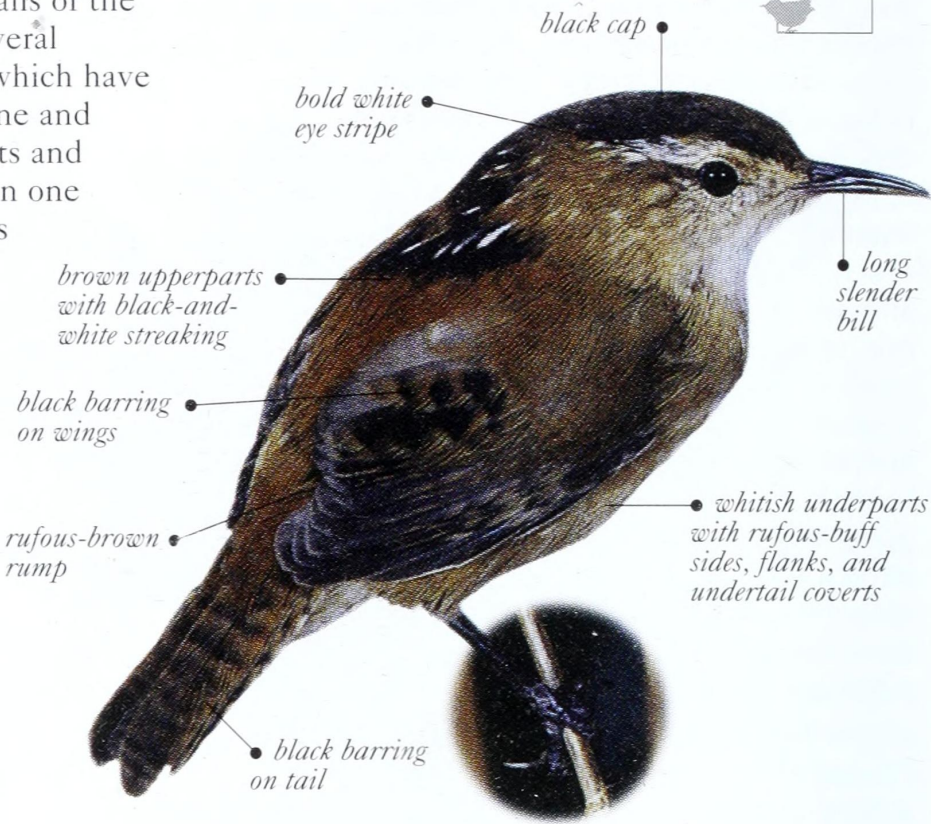
• **SONG** Sings a gurgling trilling melody, with western birds singing a harsher song than eastern birds. Call is an abrasive *te-suk-te-suk*. Western birds may have more than 200 songs in their varied repertoire, while eastern males may have only around 70.

• **BEHAVIOR** Solitary; in pairs or small colonies, depending on the size and quality of the habitat. Often secretive, foraging for food in tall marsh grasses and reeds, where it gleans aquatic insects, larvae, caterpillars, snails, and sometimes other bird's eggs. Males often sing from exposed perches or even skylark before dropping back into the cover of the thick vegetation; sometimes sing at night. Often enters the nests of other birds and destroys their eggs, sometimes having its own eggs destroyed in turn.

- **BREEDING** Polygamous. Colonial.
- **NESTING** Incubation 12–16 days by female. Young altricial; stay in nest 11–16 days, fed by both sexes, but female does more. 2 broods per year.
- **POPULATION** Common despite loss of freshwater wetlands. Most populations are migratory, but some in the West and on the

coasts, are nonmigratory year round residents.

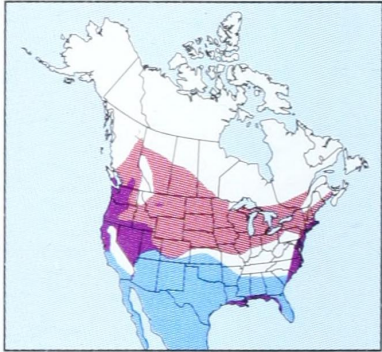
• **CONSERVATION** Neotropical migrant; vulnerable to habitat lost to development, agriculture, wetland drainage.



Similar Birds



SEdge WREN
Smaller; shorter bill; buffy brown head and upperparts; dark streaking on cinnamon rump; less distinct eye stripe; voice differs.



Flight Pattern

Weak fluttering flights, often of short duration; alternates several quick wing beats with brief pause and wings at sides.

Nest Identification

Shape Location

Reeds, grass, sedge, bulrushes for outer layer; grasses, reeds, and cattails for central cavity, lined with shredded soft materials • about 1–3 feet above water (but up to 15 feet) • male builds several nests, female selects and completes • 3–10 brown eggs, flecked with darker brown and sometimes wreathed; usually ovate, 0.7 x 0.55 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.4 ounce
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DATE _____ TIME _____ LOCATION _____

Family CINCLIDAE	Species <i>Cinclus mexicanus</i>	Length 7.5 inches	Wingspan 9 inches
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AMERICAN DIPPER

The American Dipper frequents habitat in western mountains or canyons near streams fed by melting snow, glaciers, and coastal rains. A notable characteristic of the American Dipper is its ability to fly straight into the air from underwater. Penguinlike, it uses its wings to “fly” underwater to depths of more than twenty feet. It may even walk on the bottom as it forages. This bird usually builds its nests just above the water level on cliffs, midstream boulders, or bridges, and often hidden behind waterfalls. Some of its behavior is similar to that of a wren, and it often bobs its body up and down as it stands above the water. Juveniles are similar to adults but have a pinkish bill and are paler gray, especially on the underparts.

- **SONG** Long series of rich warbles, buzzes, and trills, somewhat like a mimic thrush. Calls are a shrill loud *zzeip*, *zzreip*, or *rreip*.
- **BEHAVIOR** Solitary; in pairs only during breeding season. Wading, diving, or swimming to stream bottoms, this bird feeds on aquatic insects, their larvae, clams, snails, small fish, and crustaceans. Sometimes catches insects floating on water surfaces or gleans them from rocks and logs along the shoreline. The dipping and bobbing of its body may be a visual signal to its mate when the noise of a mountain stream would drown out any vocalization. Ranges as high as 11,500 feet in summer and moves to lower elevations in winter instead of migrating. Territories are linear, following a stream for up to a mile.
- **BREEDING** Monogamous. Sometimes polygamous.
- **NESTING** Incubation 13–17 days by female. Young altricial; stay in nest 18–25 days, fed by both sexes, but female does more. Young able to swim and dive upon departing the nest.

- 2 broods per year.
- **POPULATION** Fairly common but local.
- **CONSERVATION** Vulnerable to habitat loss caused by the damming and pollution of streams.

Flight Pattern



Strong swift direct flight on rapidly beating wings.

Nest Identification

Shape 

Location 

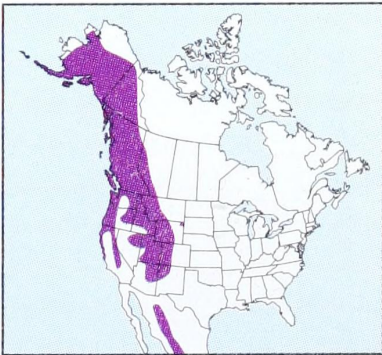
Mosses • 0–8 feet above the stream • built by female • 3–6 white eggs, unmarked; subelliptical, 1 inch long.



JUVENILE

Similar Birds

No other songbird in North America is similar in appearance and habits.



Plumage Sexes similar	Habitat 	Migration Nonmigratory	Weight 0.2 ounce
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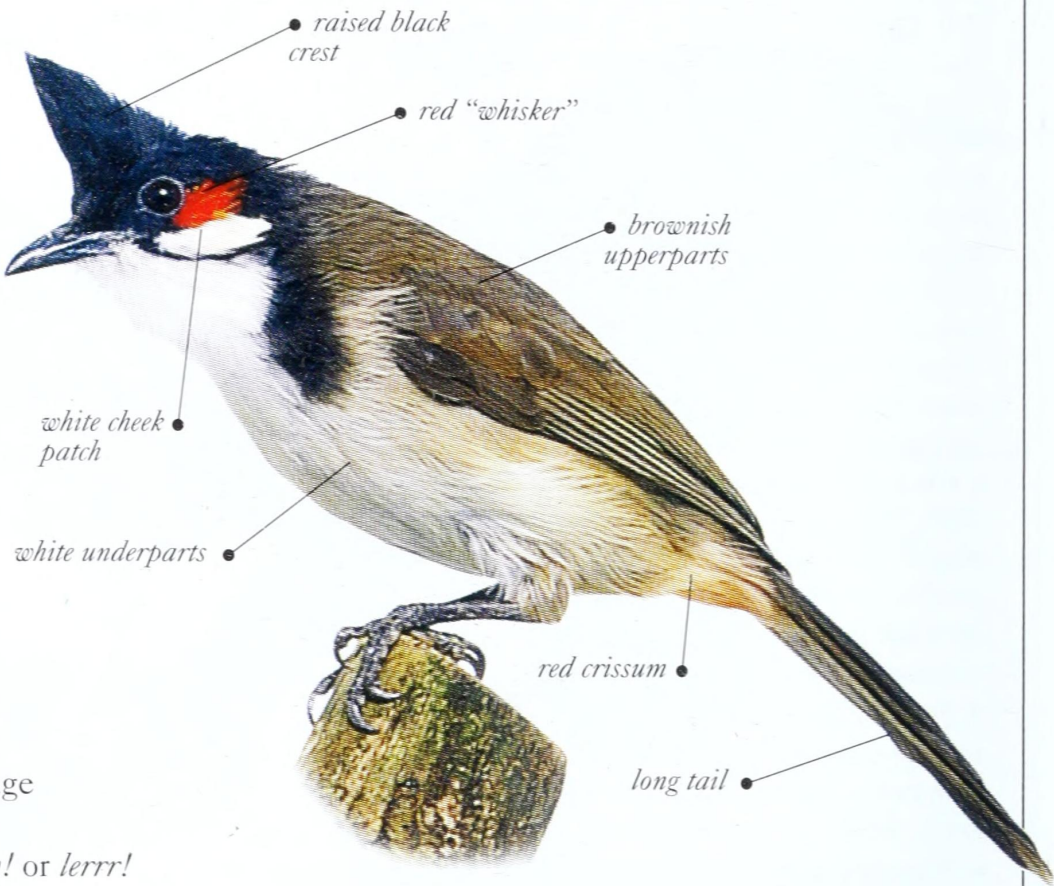
DATE _____ TIME _____ LOCATION _____

Family PYCNONOTIDAE	Species <i>Pynonotus jocosus</i>	Length 7 inches	Wingspan 11.1 inches
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RED-WHISKERED BULBUL

A popular caged bird in its native homelands of India and Asia because of its cheerful chattering and active manners, the Red-whiskered Bulbul has become established in south Florida with the escape of caged birds from the Miami area. Birds have been able to establish themselves in the southern suburbs of the city because of all the ornamental, berry-bearing shrubs and trees that provide them with their principal foods. The red “whisker” for which it is named is an ear patch behind the eye of adults. Juveniles lack the deep red ear patch and their plumage is duller overall.

- **SONG** A whistled *queekey!* or *lerrr!* Also mimics lively cheerful phrases such as “the rice must be finished off” and “pleased to MEET you.”
- **BEHAVIOR** Sometimes secretive and difficult to locate; other times lively and noisy. Singing birds often sit on exposed perches such as wires, poles, antennas, and bare branches. Often stays in small “family” groups. More gregarious in nonbreeding season, often roosts in flocks in winter.
- **BREEDING** Monogamous.
- **NESTING** Incubation time 12–14 days. Young stay in nest 10–12 days. Broods per year unknown in U.S.



JUVENILE

Flight Pattern

Direct flight with rapid wing beats.

Nest Identification

Shape Location

• **POPULATION** The small established US population has expanded its range little since its escape and is still within the urban area of Miami. Small population exists in Los Angeles area, also due to the escape of caged birds.



Shallow to deep • in crotch of tree • dead leaves, grass, paper, bark, and plastic • sometimes topped off with a snake skin • lined with fine roots and hair • 3–9 feet above ground • built by both sexes • 2–4 pinkish white eggs; oval-shaped and spotted with reddish brown and purple.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 1.0 ounce
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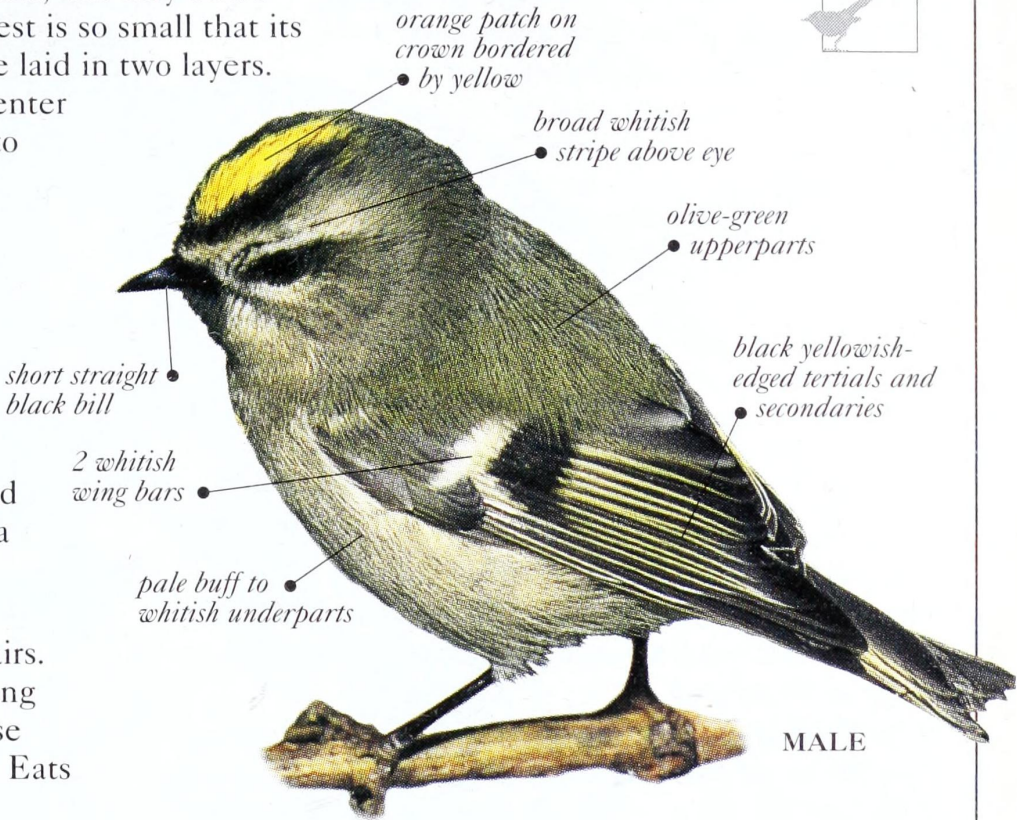
DATE _____ TIME _____ LOCATION _____

Family REGULIDAE	Species <i>Regulus satrapa</i>	Length 4 inches	Wingspan 6.5–7 inches
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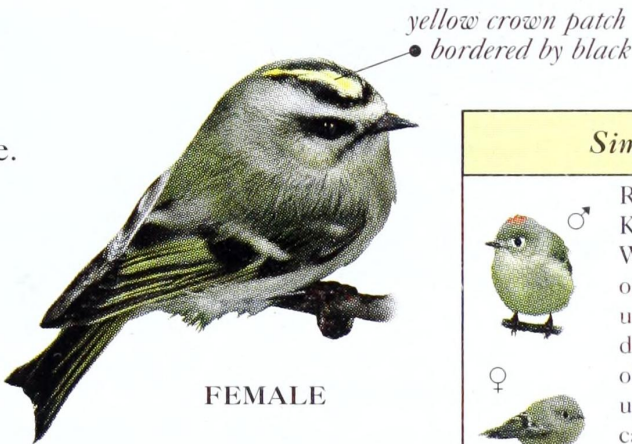
GOLDEN-CROWNED KINGLET

Living in dense coniferous forests, this tiny bird's baseball-sized sphere-shaped nest is so small that its clutch of half-inch eggs must be laid in two layers. A tame bird, it will sometimes enter human habitations and not try to escape if held. It often feeds in mixed-species foraging flocks with woodpeckers, creepers, chickadees, nuthatches, and others. Females and juveniles have a yellow crown bordered by black.

- **SONG** Sings a song beginning with 3–4 high-pitched *tsee, tsee, tsee* notes, followed by a rapid trill. Call is a series of 3–4 high-pitched *tsee* notes.
- **BEHAVIOR** Solitary or in pairs. Tame. Flits wings as it hops along branches. Forages through dense foliage of trees to pick off food. Eats mainly insects, their eggs, and larvae; takes some seeds. Drinks tree sap, sometimes taking it from sapsucker drill wells. May hawk insects or hover briefly to glean them from trunk, branch, or foliage.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 14–15 days by female. Young altricial; stay in nest 14–19 days, fed by both sexes. 1–2 broods per year.
- **POPULATION** Common in coniferous woodlands. Populations may drop after harsh cold seasons on winter range;



MALE



FEMALE

Similar Birds

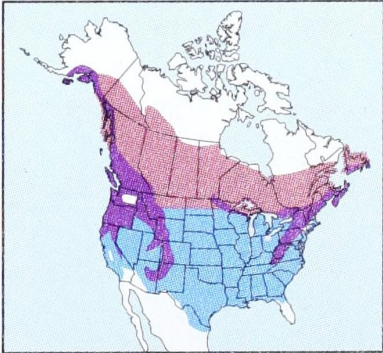


♂

RUBY-CROWNED KINGLET
White eye ring instead of white stripe over eye; underparts are darker, dusky greenish yellow; olive-green crown and upperparts; different call • only male has concealed red crown patch.



♀



Flight Pattern



Weak fluttering flight, alternating rapid shallow wing strokes with a brief pull of wings to sides. Hovers over food before dipping down to pick it up with beak.

Nest Identification

Shape  Location 

long-term stable, with range expanding to northeast. Many populations nonmigratory.

- **CONSERVATION** Neotropical migrant. Vulnerable to habitat loss caused by logging, especially of mature coniferous forests.

Lichen and moss, with lining of bark chips, rootlets, and feathers • in branch of conifer, 30–60 feet above ground • built by female • 5–11 creamy white to muddy cream eggs splotched brown or gray, usually wreathed; elliptical ovate, 0.5 inch long.

Plumage Sexes differ	Habitat 	Migration Migratory	Weight 0.2 ounce
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DATE _____ TIME _____ LOCATION _____

Family REGULIDAE	Species <i>Regulus calendula</i>	Length 4.25 inches	Wingspan 6.75–7.5 inches
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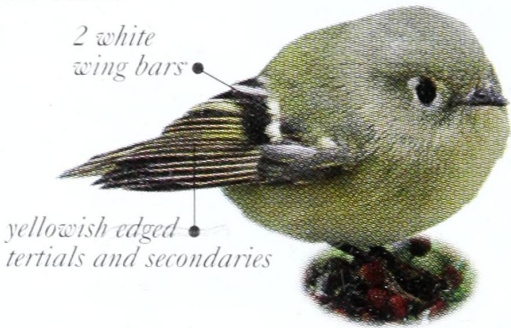
RUBY-CROWNED KINGLET

This small bird often is seen in mixed-species foraging flocks with creepers, nuthatches, titmice, warblers, and other kinglets. The red patch on the male's crown usually is not visible, unless he becomes excited, at which time he flashes it open and the whole crown seems to be gushing blood. The female and juvenile are similar to the male but lack the red patch. This species is widely distributed in the boreal zone across northern and western North America as a breeding bird, it is highly migratory.

- **SONG** Series of high-pitched *tsee, tsee* notes, followed by several *tew* notes, followed by a 3-note trill of *liberty-liberty-liberty*; an impressively long and loud song for such a small bird. Calls are emphatic *je-ditt* and *cack-cack*.
- **BEHAVIOR** Solitary or in pairs. Tame and active. Picks food off tree trunks, branches, and dense foliage; may hawk or hover to take food. Eats mainly insects, their eggs, and larvae. Also eats some fruits and seeds. Drinks tree sap, especially from the drill wells of sapsuckers. Has “nervous” habit of flicking wings when foraging, perhaps to startle insects into flinching and revealing themselves.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 12–14 days by female. Altricial young leave nest at 10–16 days, fed by both sexes. 1 brood per year.
- **POPULATION** Common and widespread in coniferous and mixed conifer-deciduous forests. Studies indicate that populations



MALE



FEMALE

Similar Birds

- ♂  **GOLDEN-CROWNED KINGLET** White stripe above eye; paler underparts; song differs • male has orange crown patch with yellow and black border
- ♀  • juveniles and females have yellow crown patch with black border.
-  **HUTTON'S VIREO** Stockier; larger head; stout bill; pale lores; olive-gray upperparts; secondaries and tertials lack yellow edging; does not flick wings; white eye ring broken above eyes; voice differs • western range.

Flight Pattern





Weak fluttering flight with shallow wing beats, alternating several quick strokes with brief periods of wings folded to sides. Hovers over branches to pick off food.

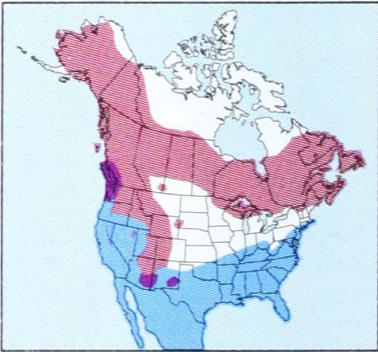
Nest Identification

Shape 

Location 

may be regulated by conditions on the wintering grounds.

- **CONSERVATION** Neotropical migrant. Vulnerable to habitat lost to logging operations. Rare cowbird host.



Moss, lichen, down, twigs, and dead leaves, lined with finer materials, including feathers • hanging from tree branch, 2–100 feet above ground • built by female • 5–11 creamy white to muddy cream eggs, splotted with brown or gray, usually wreathed; elliptical ovate to oval, 0.5 inch long.

Plumage Sexes differ	Habitat 	Migration Migratory	Weight 0.2 ounce
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DATE _____ TIME _____ LOCATION _____

Family SYLVIIDAE	Species <i>Poliioptila caerulea</i>	Length 4.25 inches	Wingspan 5.75–6.5 inches
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BLUE-GRAY GNATCATCHER

This slender bird can be seen in the East foraging in the foliage of tall trees; in the West it can be seen in thickets or chaparral. Females are similar to males but have less blue in their plumage and, like the juvenile male, lack the black line on the sides of the crown. The high thin *speee, speee, speee* notes, sounding like the calls of a baby bird, may attract attention before the tiny bird is seen.

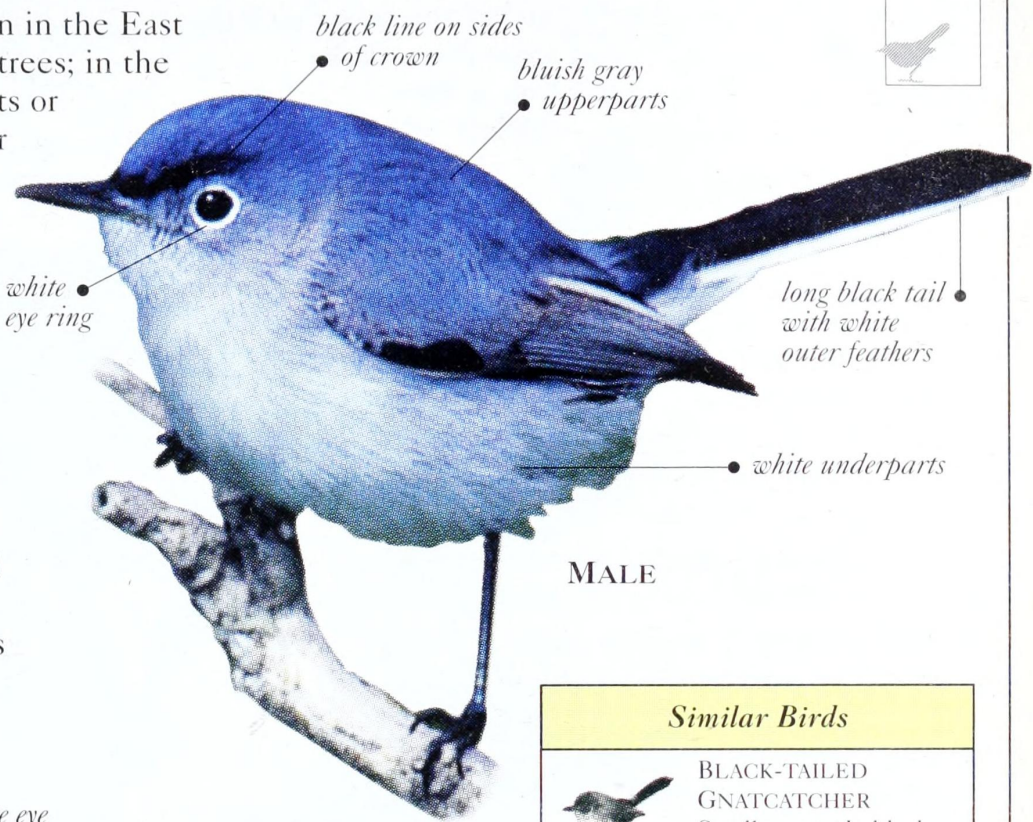
• **SONG** Sings a low-pitched trilling *zee-you, zee-you*, heard infrequently. Its call, which is given often, is a *pwee* or *speee*, inflected like a question.

• **BEHAVIOR** Solitary or in pairs. Forages in trees, shrubs, or thickets. Eats insects, their eggs, and larvae. Flicks long tail open and from side to side. Forages near branch tips. Catches insects in flight. May hover briefly above food before taking it in its bill. Disturbance of the nest early in nest building may cause the pair to dismantle it and rebuild on another site.

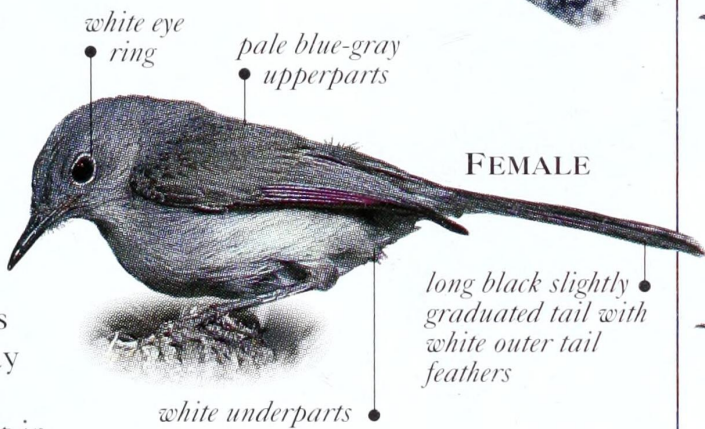
• **BREEDING** Monogamous. Solitary nester.
• **NESTING** Incubation 13 days by both sexes. Young altricial; brooded by female; stay in nest 10–12 days, fed by both sexes.
1 brood per year; 2 in far south.

• **POPULATION** Common. Population increasing and range expanding northeasterly.

• **CONSERVATION** Neotropical migrant. Common victim of cowbird parasitism.



MALE



FEMALE

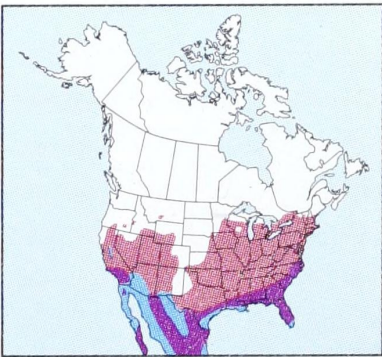
Similar Birds



BLACK-TAILED GNATCATCHER
Smaller; mostly black inner web of outer rectrices; smaller bill; white tips on graduated tail feathers; different call • male has black cap extending down to white eye ring.



BLACK-CAPPED GNATCATCHER
More graduated tail; longer bill with gray below base; more brown in wings • male has black cap extending below eyes and lacks white eye ring • rare in spring and summer in southeast Arizona.



Flight Pattern	
Weak fluttering direct flight with shallow wing beats, often of short duration.	

Nest Identification	
Shape	Location

Fine plant fibers, with lining of bark pieces and finer materials; covered with lichen bound by spider silk • saddled on branch or in fork of tree, usually 3–25 feet above ground • built by both sexes • 4–5 pale blue to bluish white eggs, usually flecked with browns, occasionally wreathed; oval to short oval, 0.6 x 0.44 inches.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.2 ounce
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DATE _____ TIME _____ LOCATION _____

Family SYLVIIDAE	Species <i>Polioptila melanura</i>	Length 4 inches	Wingspan 5.5–6 inches
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BLACK-TAILED GNATCATCHER

This bird lives near desert gulches and scrub growth. The male's black cap sets it apart from similar gnatcatchers, with the exception of the Black-capped Gnatcatcher, which is rare and local in southeastern Arizona. Males have white outer webs on outer tail feathers and white terminal spots on graduated tail feathers. Females have a brown wash on their blue-gray upperparts, especially on the back, and, like the nonbreeding males, lack the black cap.

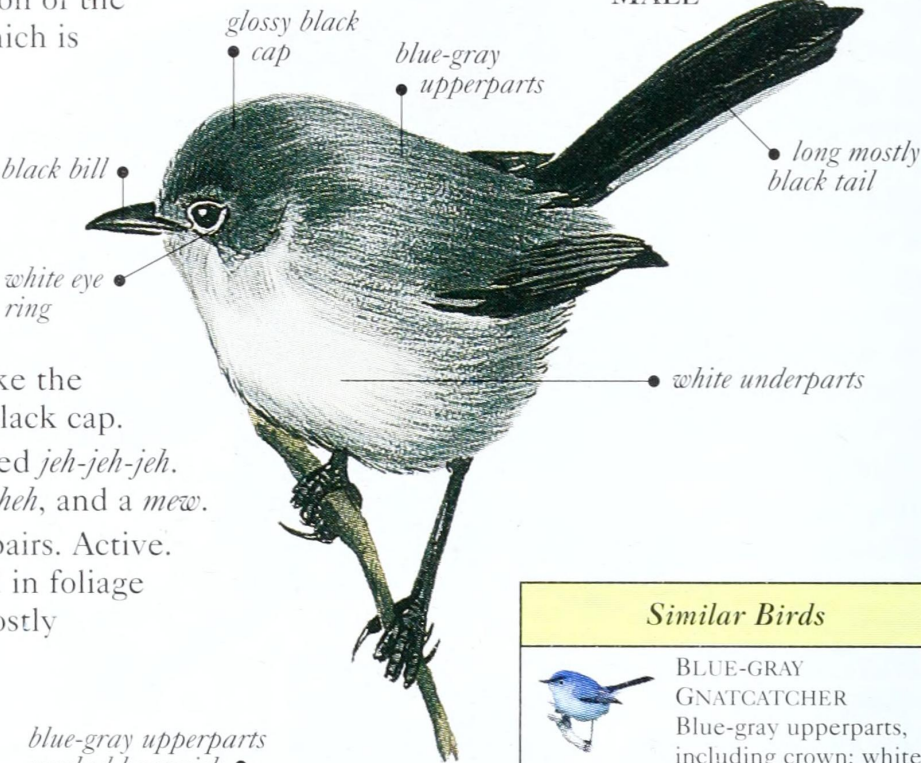
• **SONG** Sings a quick repeated *jeh-jeh-jeh*. Has calls of *cheeh*, a breathy *sseheh*, and a *mew*.

• **BEHAVIOR** Solitary or in pairs. Active. Forages for food in shrubs and in foliage and branches of trees. Eats mostly insects but some spiders and seeds. Gleans prey from foliage; hovers over prey and takes it with small bill or sometimes sallies out like a small slender flycatcher and takes insects in midair. Flicks tail from side to side or open and up and down.

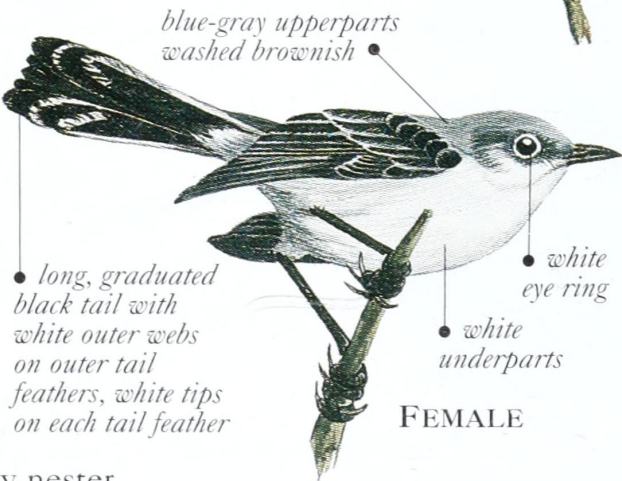
• **BREEDING**

Monogamous. Solitary nester.

• **NESTING** Incubation 14 days by both sexes. Young altricial; brooded by female; stay in nest 9–15 days, fed by both sexes. 1–2 broods per year.



MALE



FEMALE

Similar Birds



BLUE-GRAY GNATCATCHER
Blue-gray upperparts, including crown; white eye ring; black tail with white outer tail feathers; white under tail with black central feathers; voice differs • male has black line on sides of crown.



BLACK-CAPPED GNATCATCHER
Long graduated black tail with white outer webs on outer tail feathers; mostly white under tail; longer bill; voice differs • rare and local in southeastern Arizona.

Flight Pattern

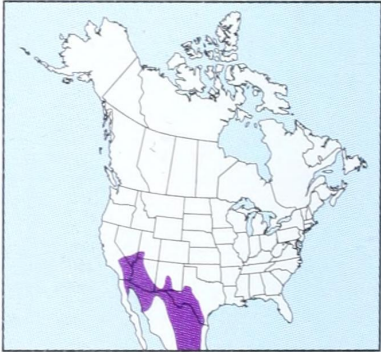
Weak fluttering direct flight with shallow wing beats, often of short duration.

Nest Identification

Shape Location

• **POPULATION** Fairly common in mesquite creosote bush and in other semidesert to desert shrub.

• **CONSERVATION** Vulnerable to habitat loss due to development and grazing. Host to cowbird parasitism.



Plant down and similar materials bound with spider silk, with lining of fine materials • in bush, usually 2–3 feet above ground • built by both sexes • 3–5 pale blue or green eggs with brown markings; oval to short oval, 0.6 x 0.44 inches.

Plumage Sexes differ	Habitat	Migration Nonmigratory	Weight 0.2 ounce
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Family TURDIDAE	Species <i>Oenanthe oenanthe</i>	Length 5.5–6 inches	Wingspan 10.5–11 inches
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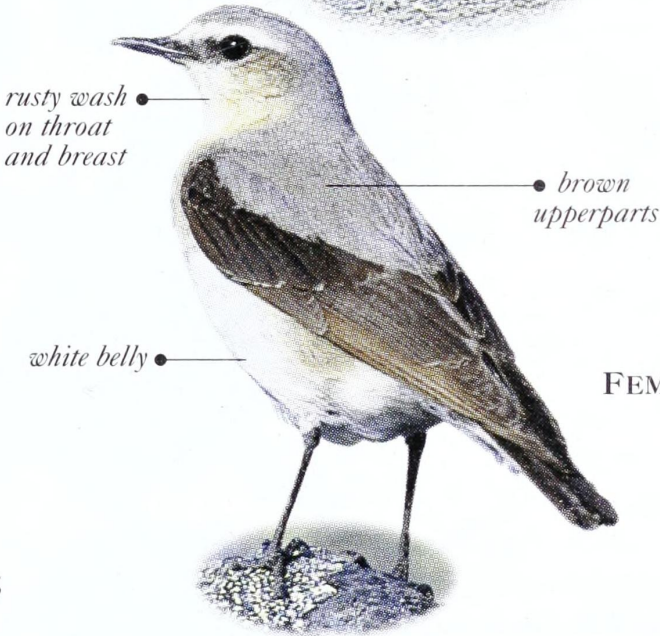
NORTHERN WHEATEAR

This long-distance flier begins its migratory route near Greenland and eventually reaches West Africa. During its courtship display, the male sings while flying upward, continues to sing while hovering, then sings with tail spread toward the female as it is gliding back down. Females and nonbreeding males are similar and show a white rump and tail base in flight.

- **SONG** Utters bossy *chack-chack* and whistled *hweet*. Song is often given in flight and imitates songs of other birds, combining call notes into a scratchy jumble of warbled notes.
- **BEHAVIOR** Solitary or in pairs. Bobs tail. Active; often nervously restless when foraging. Often makes short flights to hawk insects in air near ground. Picks food off trees and shrubs and forages on ground. Eats various insects, fruit, seeds, and small bulbs. Inhabits open, dry areas of tundra and mountain slopes, often near rocky areas. Often perches on rocks, trees, or posts.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 14 days by both sexes, but female does more. Altricial young stay in nest 15–16 days; brooded by female; fed by both sexes. 1–2 broods per year.



MALE

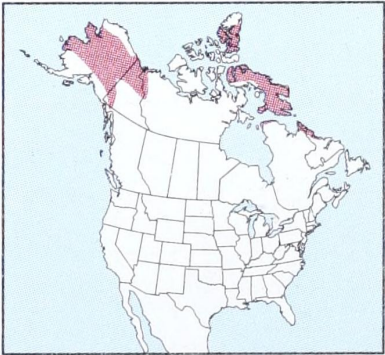


FEMALE

Flight Pattern

Relatively slow direct flight with shallow wing beats. Sallies from ground and hawks insects in air.

• **POPULATION** Rare on Atlantic Coast primarily in autumn migration. Accidental elsewhere. Fairly common breeding bird in Greenland, Siberia, and arctic regions of Alaska and both eastern and western Canada.



Nest Identification

Shape

Location

Grass, roots, and moss • lined with finer materials • in rock crevice or wood pile or on ground or cliff ridge • built by both sexes • 3–8 pale blue eggs usually flecked with red-brown; subelliptical, 0.8 x 0.6 inches.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.5 ounce
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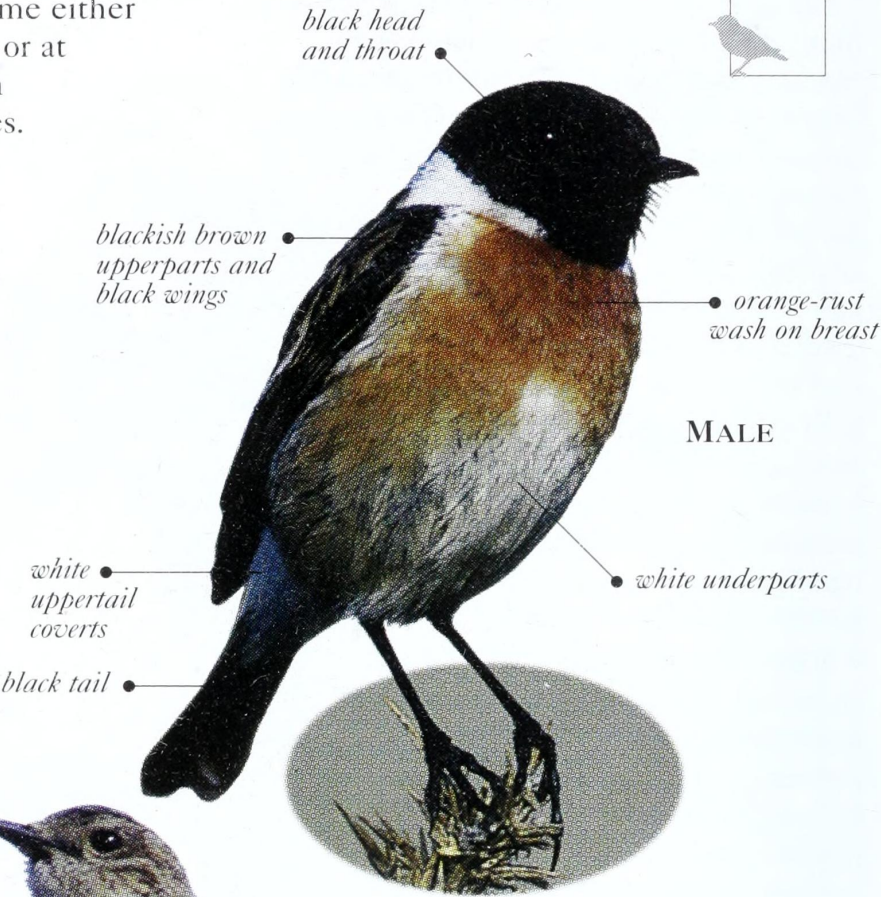
DATE _____ TIME _____ LOCATION _____

Family TURDIDAE	Species Saxicola torquata	Length 5.25 inches	Wingspan 8.5 inches
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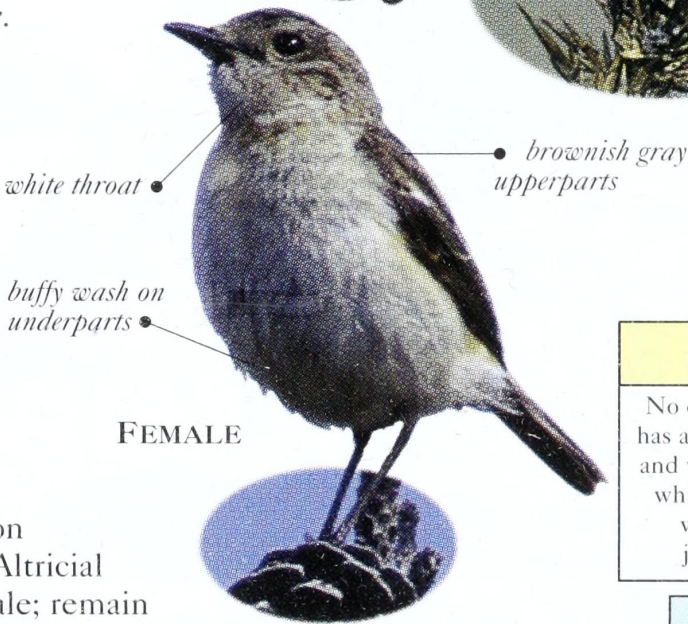
STONECHAT

This native of Eurasia makes its home either in open meadows with brushy areas or at the edges of marshes, where it often perches conspicuously on low bushes. Occasionally Stonechats have been observed on islands near the Alaska coast and once on Grand Manan Island off New Brunswick. Males in flight show a whitish rump, which contrasts with the black tail and blackish back, and a white spot shows on the inner coverts at the base of the upper wing. Females in flight also show a white rump and uppertail coverts. Juveniles appear similar to females but have white shoulder patches and pale buffy rump patches.

- **SONG** A harsh *tchack*, like two stones being struck together. Call is a short squeaky *tsk-tsk-tsk*. Also has a variable twittering trill.
- **BEHAVIOR** Solitary or in pairs. Prefers dry grasslands, moors, damp meadows, and hills. Forages for insects on ground; also picks off vegetation.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 14–15 days by female. Altricial young brooded by female; remain



MALE



FEMALE

Similar Birds

No other male songbird in its range has a black head, rusty orange breast, and white rump. The pale rump and white bar at the base of the upper wing distinguish females and juveniles from other species.



Flight Pattern

Rather slow flight with shallow wing beats.

in nest 12–15 days, fed by both sexes. 2–3 broods per year.

- **POPULATION** Casual to accidental in North America, primarily on islands off the coast of Alaska. Common in Siberia.

Nest Identification

Shape Location

Grass, moss, plant stems, and wool, lined with hair, wool, and feathers • in deep grasses, heather, or under bush • built by female • 5–8 greenish bluish eggs, marked with reddish brown; subelliptical, 0.7 x 0.55 inches.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.5 ounce
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DATE _____ TIME _____ LOCATION _____

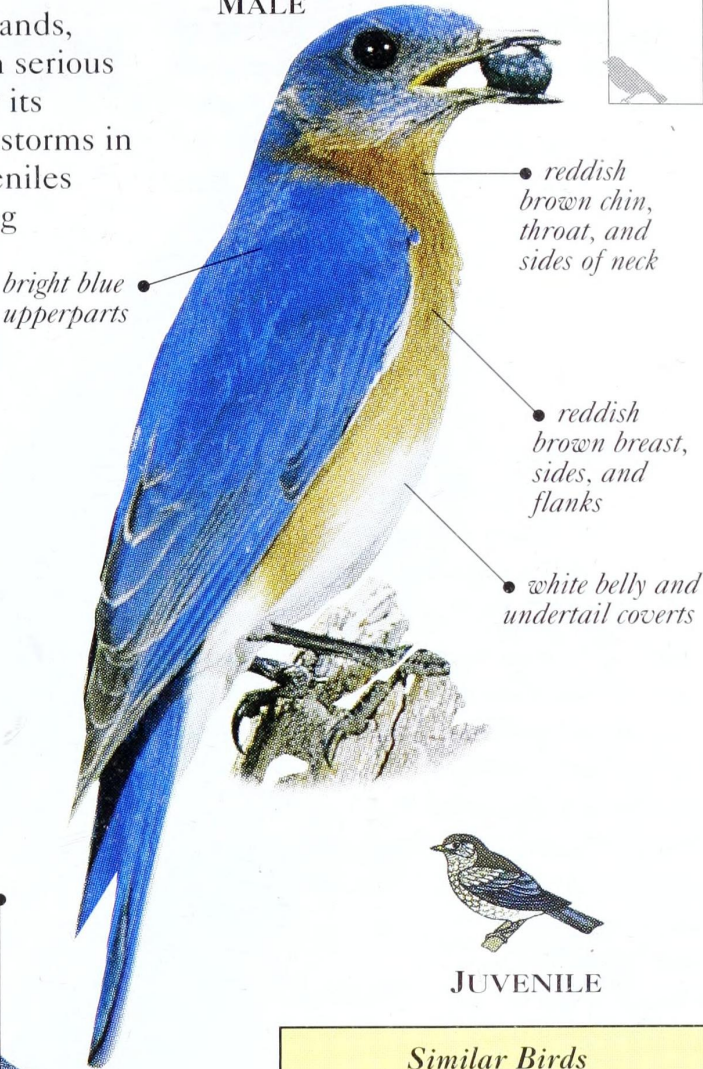
Family TURDIDAE	Species <i>Sialia sialis</i>	Length 7–7.75 inches	Wingspan 11.5–13 inches
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EASTERN BLUEBIRD

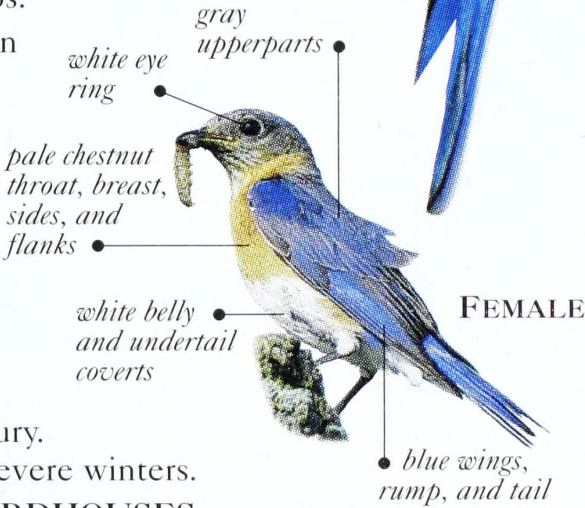
This brightly colored bird inhabits open woodlands, meadows, and fields. Its population has been in serious decline due to competition from other birds for its nesting holes, as well as occasional severe snowstorms in the South that kill them in great numbers. Juveniles show gray-brown upperparts with white spotting on the back, a brownish chest with white scalloping, a white belly and crissum, a white eye ring, and a bluish tail and wings.

- **SONG** Sings melodic *chur chur-lee chur-lee*. Male gives call of *true-a-ly, true-a-ly*.
- **BEHAVIOR** Pairs, family groups, or small flocks. Gregarious in winter, often forming large flocks and roosting communally in natural cavities or nest boxes at night. Forages in open from low perches. Flies from perch to ground and forages for food. Eats mostly insects, earthworms, and spiders but also takes snails, lizards, and frogs. In winter eats mostly berries and seeds.
- **BREEDING** Monogamous. In pairs and small groups.
- **NESTING** Incubation 12–14 days by female. Altricial young stay in nest 15–20 days; brooded by female, fed by both sexes. 2–3 broods per year.
- **POPULATION** Fairly common, but declined by more than 90 percent in 20th century. Adversely affected by severe winters.
- **FEEDERS AND BIRDHOUSES** Peanut butter–cornmeal mixture and commercial bluebird food. Nests in man-made bird boxes.

MALE



JUVENILE



Similar Birds

♂

♀

WESTERN BLUEBIRD
Blue throat and sides of neck; chestnut-red breast, sides, and flanks; pale grayish belly and crissum; rusty brown back • female has gray-rusty brown tinge on nape and back
• western range.

Flight Pattern



Relatively slow direct flight with shallow, somewhat jerky wing beats. Sallies from perch to catch insect in air.

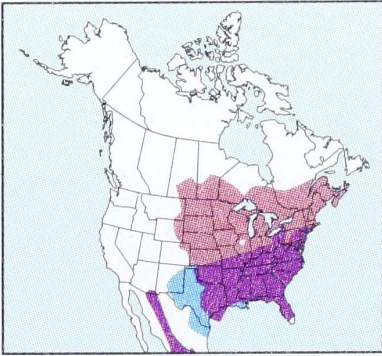
Nest Identification

Shape

Location

- **CONSERVATION** European Starling, House Sparrow, and other's intrude on nesting sites. Many nesting sites lost to cutting cavity trees. Bird boxes have helped recovery, especially those with proper hole sizes and predator guards.

Grass, weed stems, pine needles, twigs, and occasionally hair or feather • in abandoned woodpecker hole, natural hollow in tree or stump, or bird box 2–50 feet above ground • built by female • 2–7 light blue or white eggs; subelliptical to short subelliptical, 0.8 x 0.64 inches.



Plumage Sexes differ	Habitat	Migration Some migrate	Weight 1.1 ounces
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DATE _____ TIME _____ LOCATION _____

Family TURDIDAE	Species <i>Sialia currucoides</i>	Length 7–7.25 inches	Wingspan 11–12.75 inches
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MOUNTAIN BLUEBIRD

The overall brilliant blue coloring of the male sets it apart from other birds in its genus. Most often making its home in the tree-covered mountains and open landscapes of western North America, generally above seven thousand feet, it is considered to be at risk by conservationists due to its declining nesting habitat. In winter it descends to open lowlands and deserts. Juveniles are similar to females but with pale whitish streaking and spotting on the breast and sides.

• **SONG** Often silent. A low warbling *tru-lee*. Call is a *phew*.

• **BEHAVIOR** Solitary or in pairs or small family groups. Hovers more than other bluebirds, dropping on prey from above or pouncing on it from low perches. Catches insects in flight and forages on ground. Eats insects, caterpillars, and some fruits and berries. Eats mostly insects in summer.

• **BREEDING** Monogamous. Solitary nester.

• **NESTING** Incubation 13–14 days by female. Altricial young brooded by female first 6 days; stay in nest 22–23 days, fed by both sexes. 2 broods per year.

• **POPULATION** Fairly common but declined over much of its range in the 1900s due to loss of nesting cavities to other species.

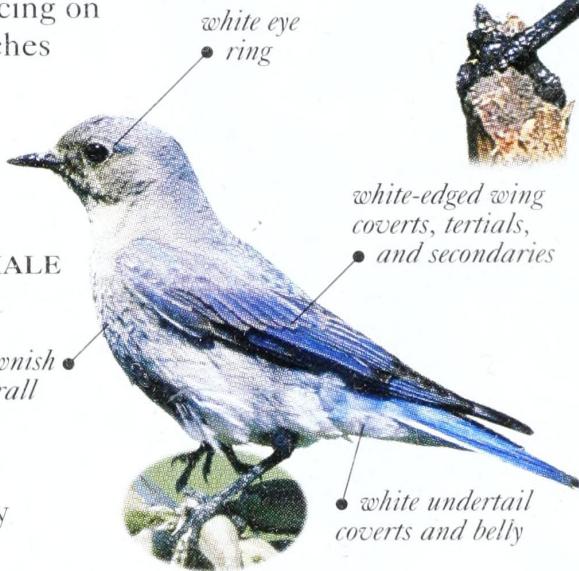
Casual in the East during migration and winter to north Atlantic seaboard.

• **BIRDHOUSES** Will nest in bird boxes.

• **CONSERVATION** Habitat loss is a concern.



MALE

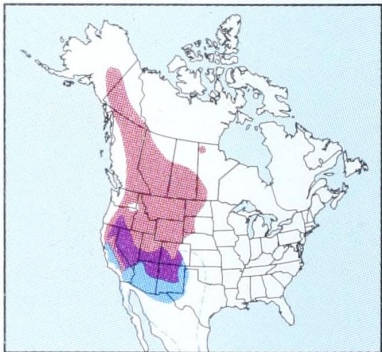


FEMALE

Similar Birds



WESTERN BLUEBIRD
Male is darker blue-purple with chestnut-red breast, sides, and flanks; pale grayish belly and crissum; rusty brown back • female is tinged gray-rusty brown on nape and back; chestnut-red on breast, sides, and flanks
• western range.



Flight Pattern



Relatively slow direct flight with shallow, somewhat jerky wing beats. Often hovers over prey before dipping down to seize it.

Nest Identification

Shape

Location

Grass, weed stems, pine needles, and twigs, occasionally with hair or feathers • in natural tree cavity, ridges of buildings, abandoned nest of swallow, or nest box • built by both sexes • 4–8 pale blue to bluish white eggs, rarely white; subelliptical to oval, 0.8 x 0.64 inches.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 1.1 ounces
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DATE _____ TIME _____ LOCATION _____

Family TURDIDAE	Species <i>Myadestes townsendi</i>	Length 8.5–9 inches	Wingspan 13–14.5 inches
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TOWNSEND'S SOLITAIRE

Its beautiful prolonged song given from high up in the trees, is in marked contrast with the rather plain-looking plumage of this gray bird. Although it makes its home in the high mountains most of the year, during the winter season Townsend's Solitaire moves into the canyons, where it maintains a winter territory and protects a critical food supply. In flight the white outer tail feathers contrast with the inner black ones, and the bird shows white axillaries and a long buffy wing patch. Juveniles are dark brownish gray, with buffy and white scalloping on both the upperparts and underparts, as well as a buffy crissum and wing patch.

- **SONG** A pleasant trilling and rich warble. Often sings in flight. Call is a squeaking *eeek* or a plaintive whistled *wee*.
- **BEHAVIOR** Solitary or in pairs. Forms small groups in winter. Perches upright and remains still for long periods of time, thus is easily overlooked. Perches on exposed branch to spot insect, then sallies out to catch in midair and returns to perch. Also forages on ground. Feeds on various insects, worms, and caterpillars in summer; winter diet consists principally of juniper berries. In summer, frequents mountainous coniferous forests around 3,000 feet below the timberline; in winter, descends to canyons with open juniper forests on lower slopes.
- **BREEDING** Monogamous. Solitary or small family groups.
- **NESTING** Incubation 14 days by both sexes, but female does more. Altricial young brooded by female; remain in nest 15–16 days, fed by both sexes. 1 brood per year (possibly 2 broods in the South).

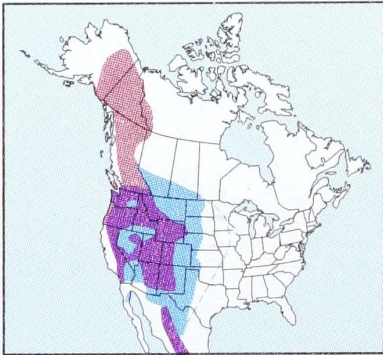


JUVENILE

Similar Birds



NORTHERN MOCKINGBIRD
Superficial resemblance
• paler gray overall; two whitish wing bars; white wing patch; faint eye stripe; longer bill.



Flight Pattern

Rather slow flight; several slow wing beats followed by short glides. Often irregular in flight pattern, changing directions quickly. Sallies from perch to snatch insects in air.

Nest Identification

Shape Location

• **POPULATION** Fairly common in montane coniferous forests. Casual to rare in winter in eastern North America.

Grass, roots, and moss, lined with fine materials • on ground, sheltered by overhanging branches, rocks, or natural overhang • built by both sexes • 3–8 pale blue eggs, usually unmarked, occasionally flecked with red-brown; oval, varying from short oval to long oval, 0.8 x 0.6 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.2 ounces
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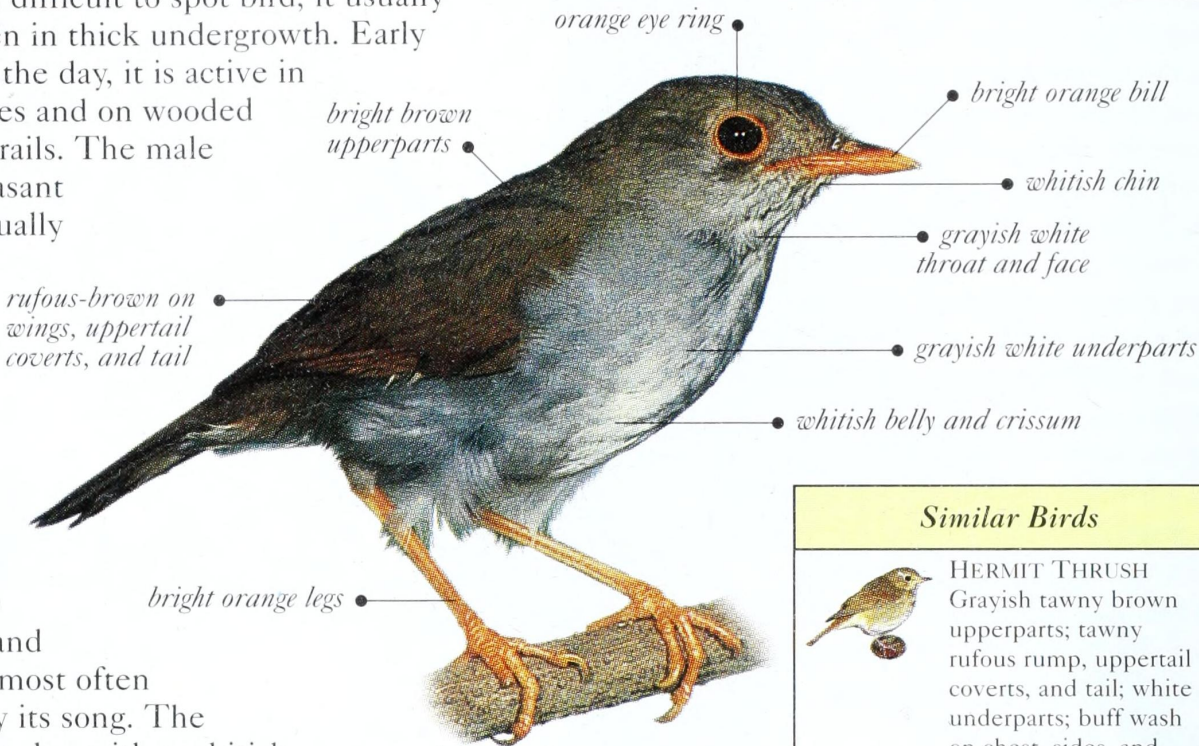
DATE _____ TIME _____ LOCATION _____

Family TURDIDAE	Species <i>Catharus aurantiirostris</i>	Length 6.5 inches	Wingspan 11 inches
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ORANGE-BILLED NIGHTINGALE-THRUSH

This drab-colored thrush from Mexico and Central America can be identified by its bright orange bill and eye ring. A shy, difficult to spot bird, it usually stays hidden in thick undergrowth. Early and late in the day, it is active in fruiting trees and on wooded roads and trails. The male sings a pleasant melody, usually at dawn



and dusk, and the bird is most often revealed by its song. The juvenile is paler, with a whitish throat; whitish underparts; heavily mottled dark brown on chest, sides, and flanks; and duller brown upperparts spotted with buffy cinnamon. Only the northeastern and mountain populations migrate.

- **SONG** Bold melodic short scratchy warbled phrases, *cheer-che-witzee* or *chiveree-chee-oo*'. Has a nasal mewling call of *meeeahr*. Alarm call is a *charr*.
- **BEHAVIOR** Solitary. Shy. Hops and runs on ground, staying hidden in thick vegetation. Somewhat conspicuous when singing on perches at low to middle levels in understory or trees. Attracted to fruiting trees. Eats insects, small invertebrates, and berries.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 13–15 days by female. Young altricial;

brooded by female; stay in nest 13–17 days, tended by both sexes. 1 brood per year.

- **POPULATION** Accidental in the Rio Grande Valley of Texas.
- **CONSERVATION** Vulnerable to habitat loss due to land clearing and logging.

Flight Pattern

Swift rapid flight on quickly beating wings, generally of short distance in understory.

Nest Identification

Shape

Location

Stems, rootlets, and moss, with lining of rootlets and mud • low in bush • less than 3 feet above ground • built by both sexes • 2–3 light blue or green eggs, with dots and splotches of reddish brown; oval to short oval, 0.8 x 0.6 inches.

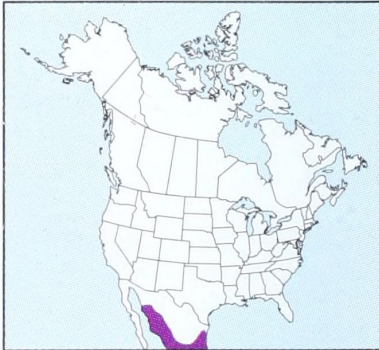
Similar Birds



HERMIT THRUSH
Grayish tawny brown upperparts; tawny rufous rump, uppertail coverts, and tail; white underparts; buff wash on chest, sides, and flanks; dark brown spotting on throat and chest; white eye ring; dark bill with pinkish yellow base; often pumps tail.



VEERY
Reddish brown upperparts; white underparts with buffy wash on breast and brownish spots and streaking on chin and upper breast; grayish wash on sides and flanks; yellowish bill with blackish tip.



Plumage Sexes similar	Habitat	Migration Some migrate	Weight 1.0 ounce
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DATE _____ TIME _____ LOCATION _____

Family TURDIDAE

Species *Catharus fuscescens*

Length 7–7.5 inches

Wingspan 11–11.5 inches

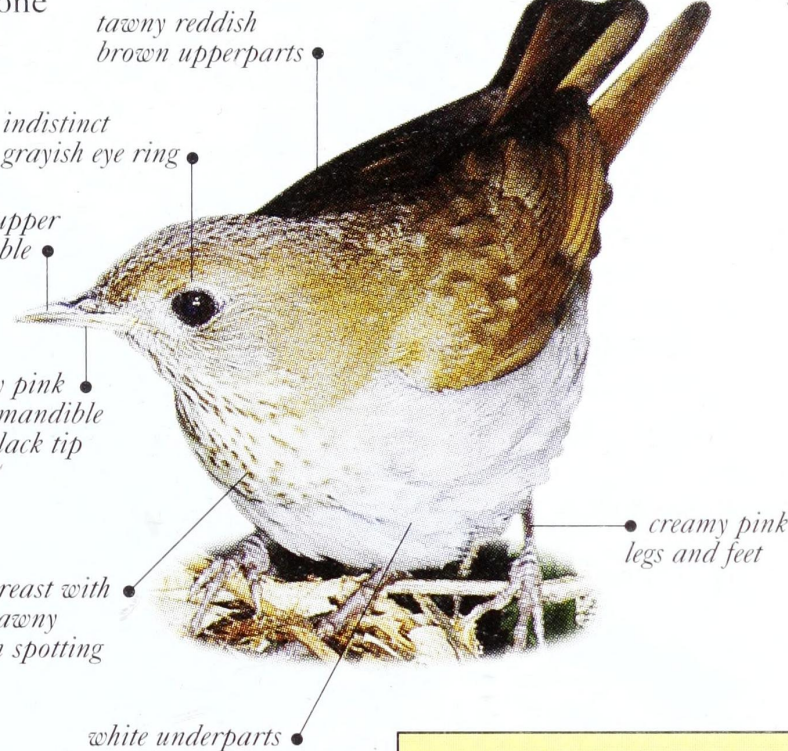
VEERY

This bird is named for the lovely ethereal downward-slurring song of the male, which is heard at sunset, a repeated *veer-u*. It is one of the most splendid songs of any bird in North America. Its tawny and buff plumage serves as camouflage in the forest it calls home. The Veery is the least spotted of North America's brown-backed thrushes, with the western populations slightly more spotted than the eastern ones. This bird haunts shaded moist woodlands with dense to scattered understory.

- **SONG** Sings pleasant liquid descending *veer-u, veer-u, veer-u*, with each note sung lower, repeated frequently with variation in phrasing. Call is harsh down-slurred *veer*. Summer evenings, woodlots and forests fill with the song of one singer cascading into that of another; the chorus at twilight is one of the truly beautiful sounds of nature in the Northwoods.
- **BEHAVIOR** Solitary or in pairs. Somewhat shy and retiring. Forages on ground and in trees; swoops from low perch to take prey on ground, or gleans food from branches, foliage, or ground. Eats various insects, caterpillars, spiders, berries, and fruit. Agitated birds flick wings and raise small crest. Both sexes guard and defend young.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 10–12 days by female. Young altricial; brooded by female; remain in nest 10 days, fed by both sexes. 1 brood per year (sometimes 2 in the South).
- **POPULATION** Fairly common but numbers declining due to

habitat loss on breeding and wintering grounds.

- **CONSERVATION** Neotropical migrant. Common nest host to Brown-headed Cowbird. Vulnerable to habitat loss due to deforestation.



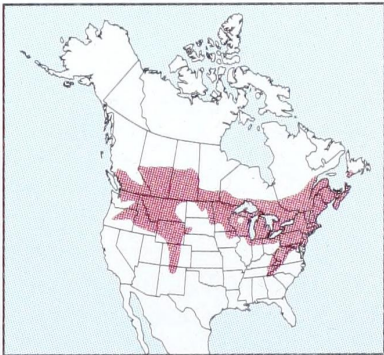
Similar Birds



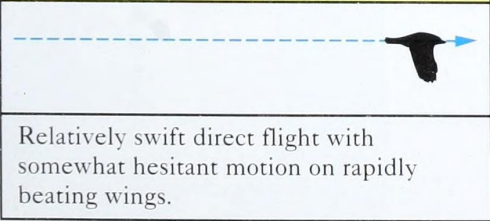
WOOD THRUSH
Larger; dark spotting on breast, sides, and upper belly; rufous on upperparts, brightest on nape and crown; black streaking on face; white eye ring.



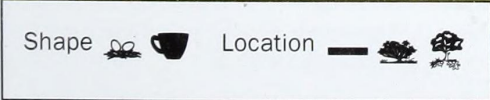
HERMIT THRUSH
Olive- to russet-brown upperparts; pale grayish white underparts with blackish brown spots and speckles; reddish brown tail and rump; white eye ring.



Flight Pattern



Nest Identification



Grass, bark strips, weed stems, twigs, and moss, with lining of soft bark and dry leaves • atop platform on dry ground, sheltered by shrubs, grasses, or weeds; sometimes in low tree or shrub, 0–6 feet above ground • built by female • 3–5 pale blue eggs, usually unmarked; subelliptical to short subelliptical, 0.9 x 0.65 inches.

Plumage Sexes similar

Habitat

Migration Migratory

Weight 1.1 ounces

DATE _____ TIME _____ LOCATION _____

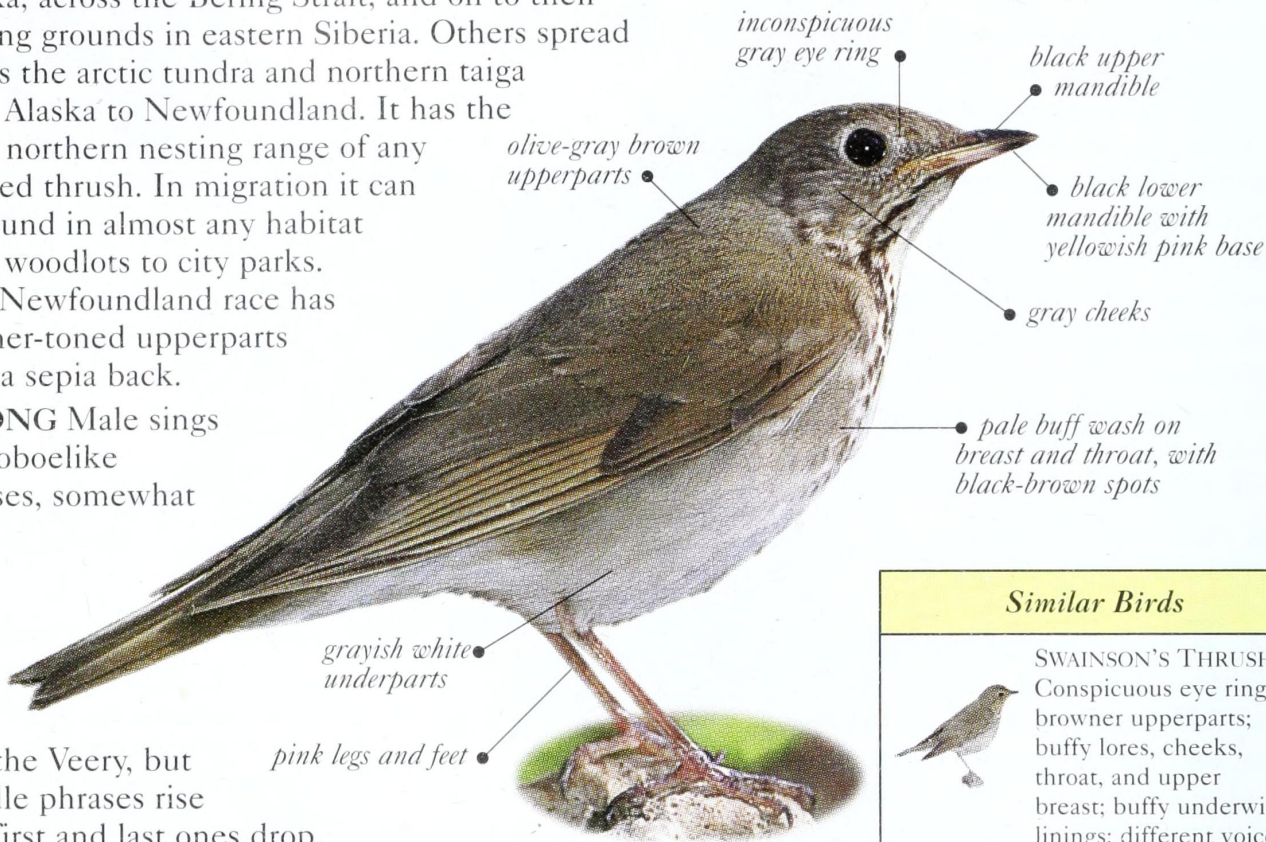
Family TURDIDAE	Species <i>Catharus minimus</i>	Length 7–7.75 inches	Wingspan 11.5–13.5 inches
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GRAY-CHEEKED THRUSH

This bird is a truly long-distance migrant. Each spring some of its population fly from southern Brazil to Alaska, across the Bering Strait, and on to their nesting grounds in eastern Siberia. Others spread across the arctic tundra and northern taiga from Alaska to Newfoundland. It has the most northern nesting range of any spotted thrush. In migration it can be found in almost any habitat from woodlots to city parks. The Newfoundland race has warmer-toned upperparts with a sepia back.

- **SONG** Male sings thin oboelike phrases, somewhat



- like the Veery, but middle phrases rise and first and last ones drop, *wheooo-titi-wheooo*. Call is a thin high abrasive *phreu*. Vocal at dawn and especially at dusk.
- **BEHAVIOR** Solitary or in pairs. Shy and retiring, often staying in the dense understory and thickets. More heard than seen. Feeds on spiders, caterpillars, earthworms, various insects, and even small crayfish. In fall migration, feeds more on berries and some fruits.
 - **BREEDING** Monogamous. Solitary nester.
 - **NESTING** Incubation 13–14 days by female. Young altricial; brooded by female; stay in nest 11–13 days. Fed by female. 1–2 broods per year.
 - **POPULATION** Common; southern breeding populations declining due to loss of habitat.

Similar Birds



SWAINSON'S THRUSH
Conspicuous eye ring; browner upperparts; buffy lores, cheeks, throat, and upper breast; buffy underwing linings; different voice.

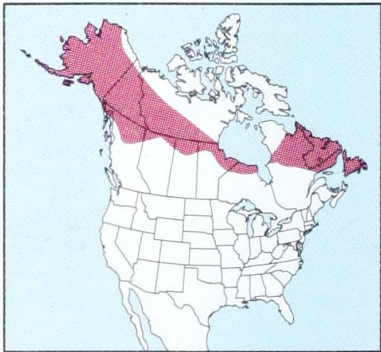


BICKNELL'S THRUSH
Formerly considered subspecies of Gray-cheeked Thrush
• smaller; warmer brown tones on upperparts, especially on tail and rump; more extensive yellow on lower mandible
• limited range in extreme northeast US
• best separated by voice.

Flight Pattern

Relatively swift direct flight with somewhat jerky wing strokes.

- **CONSERVATION** Neotropical migrant. Vulnerable on both breeding grounds and wintering areas to habitat loss from logging operations and forest fragmentation.



Nest Identification

Shape

Location

Grass, sedge, bark, weed stems, twigs, and moss, with lining of grass, leaves, and fine rootlets • on low branch of tree or shrub, usually 0–10 feet above ground (but as high as 20 feet) • built by female • 3–6 greenish blue to pale blue eggs, most often speckled brown; oval to short oval, 0.9 x 0.65 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.2 ounces
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Family TURDIDAE

Species *Catharus bicknelli*

Length 6.25 inches

Wingspan 10–11 inches

BICKNELL'S THRUSH

Except when the male perches at the top of a tree to sing, this shy bird remains hidden in trees and bushes. It is a long-distance migrant that until recently was considered a subspecies of the Gray-cheeked Thrush, from which it is difficult to separate in the field. Its eastern breeding range in the northeastern US, southeastern Canada, and the Maritimes helps to isolate it for identification purposes from the more northern and widespread Gray-cheeked Thrush.

• **SONG** A raspy thin nasal whistled descending series of trilling phrases, somewhat like a Veery, in 3 parts, with the first and last parts rising. Call is a 2-syllabled down-slurred *vee-ah*.

• **BEHAVIOR** Solitary or in pairs. Shy and retiring, often retreating to dense cover when approached. Feeds primarily on ground or low in understory or trees. Eats mainly insects, their larvae, spiders, and earthworms, which it picks from the ground or gleans from branches and foliage. In fall, eats more berries and fruit.

• **BREEDING** Monogamous. Solitary.

• **NESTING** Incubation 13–14 days by female. Young altricial; brooded by female; first flight at 11–13 days, fed by both sexes. 1 brood per year.

• CONSERVATION

Neotropical migrant. Vulnerable on both breeding and wintering grounds to habitat loss due to timbering operations and forest fragmentation. Host to nest parasitism by cowbirds.



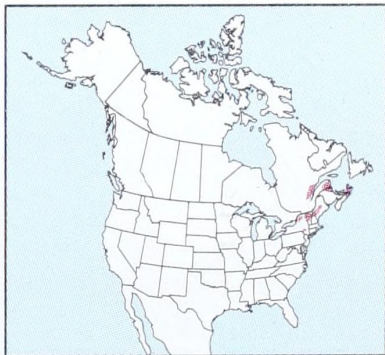
Similar Birds



GRAY-CHEEKED THRUSH
Larger; olive-gray upperparts; olive-brown tail; gray cheeks; gray wash on breast, sides, and flanks; yellow on lower mandible less extensive; voice differs.



SWAINSON'S THRUSH
Conspicuous eye ring; browner upperparts; buffy lores, cheeks, throat, and upper breast; buffy underwing linings; yellow on lower mandible is less extensive; voice differs.



Flight Pattern



Relatively swift direct flight with somewhat jerky wing strokes.

Nest Identification

Shape Location

Grasses, leaves, bark, mud, and mosses, with no lining or a few leaves • in tree, about 3–20 feet above ground • built by female • 3–6 greenish blue to pale blue eggs, with faint blotches of brown; oval to short oval, 0.8 x 0.6 inches.

Plumage Sexes similar

Habitat

Migration Migratory

Weight Undetermined

DATE _____ TIME _____ LOCATION _____

Family TURDIDAE	Species <i>Catharus ustulatus</i>	Length 7 inches	Wingspan 11.5 inches
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SWAINSON'S THRUSH

Named for 19th-century British ornithologist William Swainson, this bird migrates through North America from its nesting grounds in Canada and mountainous eastern and western US to its winter home in the tropics. Migrating at night, flocks of these birds give plaintive, Spring Peeper-like calls in the darkness as they pass overhead. It often travels in mixed flocks with other thrushes, vireos, and wood warblers. In flight these birds show buff underwing linings.

- **SONG** Sings upward series of thin, musical, varied whistling notes repeated at intervals without change. Call is liquid *whit* similar to the dripping sound of a leaky faucet.
- **BEHAVIOR** Solitary or in pairs. Shy and retiring. Feeds more in trees than other spotted brown thrushes. Picks food off leaves, catches some insects in air, and forages for food on ground. Eats insects, snails, and earthworms. In fall migration eats more fruits and berries. A habitat generalist during migration; prefers conifers and mixed conifer-deciduous forests for nesting. In agonistic displays flicks wings and raises crest. More often heard than seen.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 12–14 days by female. Altricial young stay in nest 10–13 days. Brooded by female. Fed by both sexes. 1 brood per year.
- **POPULATION** Fairly common in most woodlands and

coniferous forests. Abundant in boreal forests.

- **CONSERVATION** Neotropical migrant. Vulnerable to habitat loss from logging and deforestation on breeding and wintering grounds.

Flight Pattern



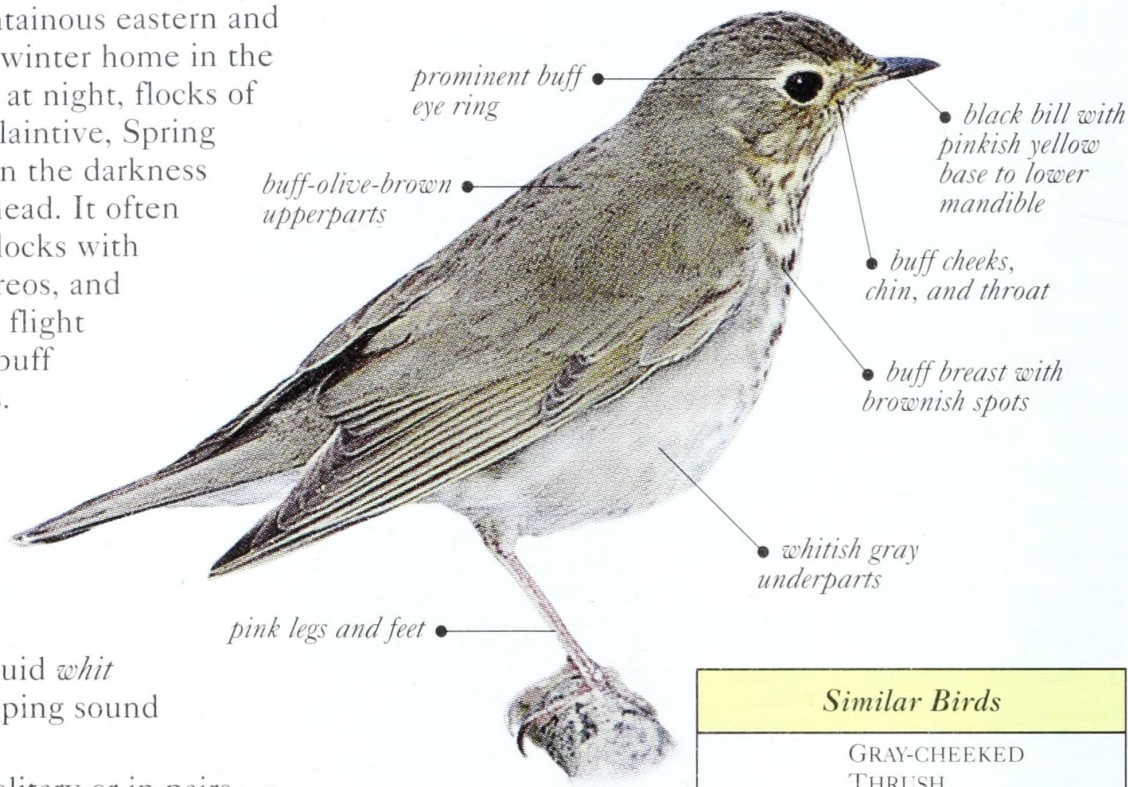
Relatively swift direct flight with rapid wing beats.

Nest Identification

Shape 

Location 

Sticks, moss, leaves, plant fibers, and bark with occasional middle layer of mud • lined with lichens, dried leaves, and rootlets • on branch close to trunk of conifer, or occasionally in other trees or shrubs, 0–40 feet (usually 4–20 feet) above ground • built by female • 3–5 pale blue eggs usually flecked with browns; oval to short oval, 0.8 x 0.6 inches.



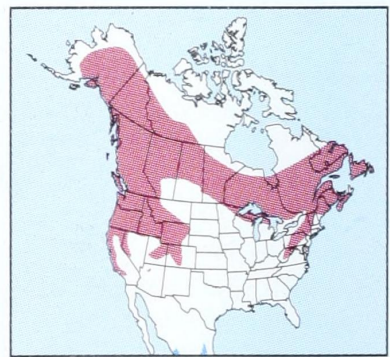
Similar Birds



GRAY-CHEEKED THRUSH
Larger; gray cheeks; buff-gray wash on spotted breast; gray wash on sides and flanks; olive-gray upperparts; indistinct eye ring; different voice.



BICKNELL'S THRUSH
Smaller; more brown upperparts; tawny brown on rump and tail; more extensive yellow on lower mandible; different voice
• northeastern range.



Plumage Sexes similar	Habitat 	Migration Migratory	Weight 1.1 ounces
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DATE _____ TIME _____ LOCATION _____

Family TURDIDAE

Species *Catharus guttatus*

Length 6.75 inches

Wingspan 11.5 inches

HERMIT THRUSH

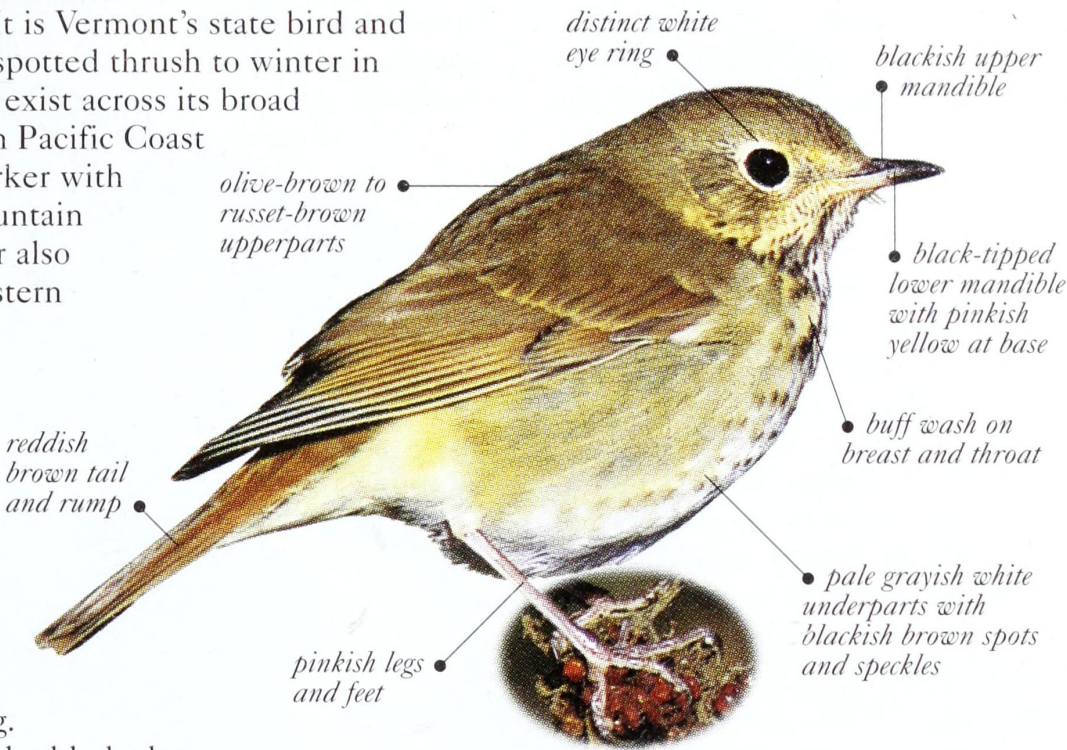
Often considered to have one of the most beautiful songs of all North American birds, the Hermit Thrush lives in habitats with coniferous and deciduous trees and along forest edges. It is Vermont's state bird and the only brown-backed spotted thrush to winter in the US. Color variations exist across its broad breeding range: northern Pacific Coast races are smaller and darker with gray flanks; western mountain races are larger and paler also with gray flanks; and eastern races are brownish gray with buff-brown flanks.

• **SONG** Song begins with long clear low flutelike note and then rises with delicate ringing tones ending in thin, silvery notes; each phrase is repeated, and the pitch differs from that of the previous song. Call note is *chuck*, often doubled; also gives upslurred *wee*.

• **BEHAVIOR** Solitary or in pairs. Often curious and approachable. Responds to pishing sound or imitations of Eastern Screech-Owl by coming close, flicking wings, raising crest, and raising and lowering tail. Often slightly raises and lowers tail upon landing. Sometimes hovers above food on branch or foliage and picks it off with beak. Forages on ground for various insects, insect larvae, and other small invertebrates, including earthworms and snails. Also eats berries and some fruit, especially in autumn migration and winter.

• **BREEDING** Monogamous. Solitary nester.

• **NESTING** Incubation 12–13 days by female. Altricial young remain in nest 12 days; brooded by female, fed by both sexes. 2–3 broods per year.



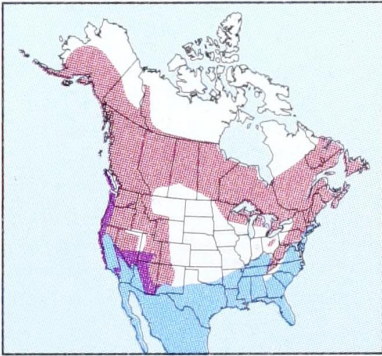
Similar Birds



VEERY
Reddish brown upperparts; lacks dark spotting on breast; inconspicuous eye ring; different voice.



WOOD THRUSH
Reddish brown upperparts; brightest on crown and nape; heavy black spotting on underparts; different voice.



• **POPULATION** Fairly common. Breeding range is extending southward in southern Appalachians.
• **CONSERVATION** Neotropical migrant. Uncommon host to cowbirds.

Flight Pattern

Rather swift direct flight with rapid wing beats. Sometimes hovers briefly over prey before dipping to pick it up.

Nest Identification

Shape Location

Weeds, rotted wood, twigs, mud, and other fine materials • lined with moss and grass • on ground or low on branch of tree 0–8 feet above ground • occasionally nests in rafters of mountain buildings • built by female • 3–6 greenish blue eggs usually unmarked but sometimes with black flecks; oval to short oval, 0.8 x 0.6 inches.

Plumage Sexes similar

Habitat

Migration Most migrate

Weight 1.1 ounces

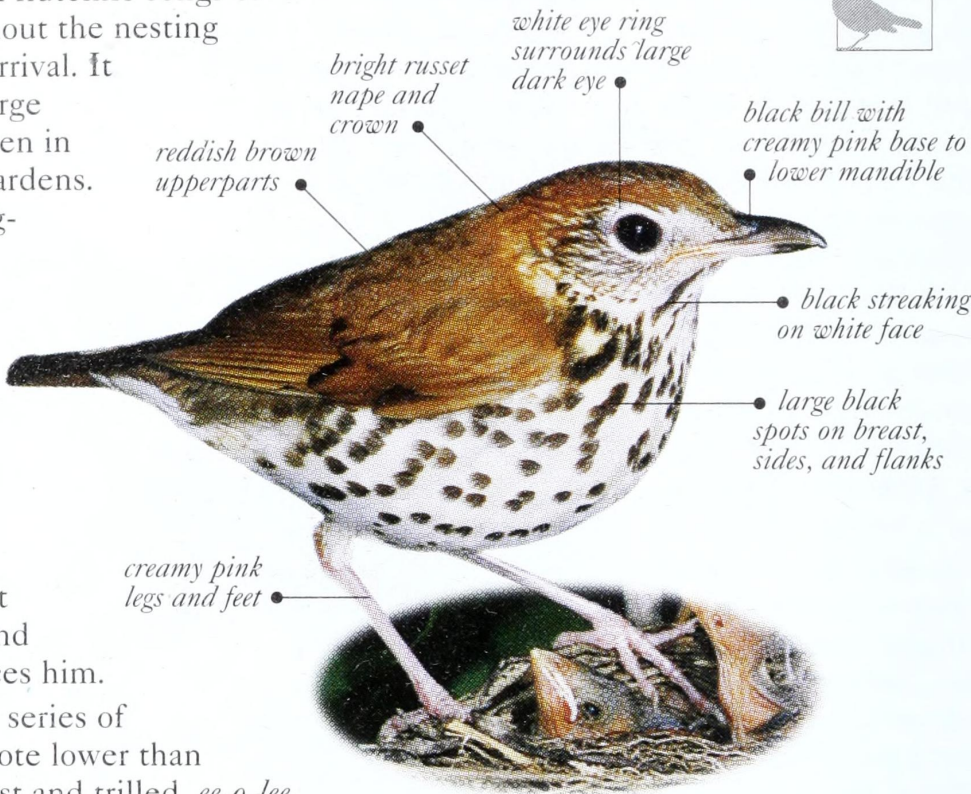
DATE _____ TIME _____ LOCATION _____

Family TURDIDAE	Species <i>Hylocichla mustelina</i>	Length 7.75–8 inches	Wingspan 13–14 inches
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WOOD THRUSH

In early spring, the peaceful flutelike songs of the males are heard throughout the nesting territory, announcing their arrival. It frequents moist forests or large woodlots, but also can be seen in parks, towns, and country gardens. When this heavy-bodied big-eyed short-tailed thrush is agitated, it lifts the feathers on its head like a crest. The song, one of the most beautiful thrush songs, is given before daybreak, but is most prolonged at dusk, when the singer perches high above ground and delivers it in leisurely fashion, rising and falling, until darkness silences him.

- **SONG** A serene flutelike series of triple phrases, the middle note lower than the first, the last note highest and trilled, *ee-o-lee, ee-o-lay*. Call is an abrasive *quirt* or rapid *pit, pit, pit*.
- **BEHAVIOR** Solitary or in pairs. Somewhat shy and retiring but may feed in the open on wooded lawns. Feeds on ground or in trees close to ground, gleaning food from ground or from branches and foliage. Eats various insects, spiders, and fruits; feeds largely on fruits and berries in fall migration. In courtship, male chases female in series of fast twisting circling flights within the male's territory. Territorial in winter.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 13–14 days by female. Young altricial; brooded by female; remain in nest 12 days, fed by both sexes. 1–2 broods per year.
- **POPULATION** Common in moist deciduous or mixed deciduous-conifer woodlands, often near water. Casual in the West during migration.



Similar Birds

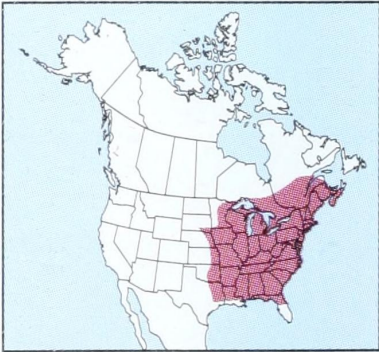


VEERY
Smaller; uniform reddish brown upperparts; lacks black spotting of underparts; longer tail; voice differs.



HERMIT THRUSH
Smaller; rich brown to gray-brown upperparts; buff wash on breast; dark spotting confined to throat and upper breast; rufous rump and tail; voice differs.

- **CONSERVATION** Neotropical migrant. Population declining in recent decades due to nest parasitism by cowbirds, forest fragmentation on breeding grounds, and habitat loss on wintering grounds in Central America.



Flight Pattern	
	Relatively swift direct flight on rapidly beating wings. Flights in woodlots often of short duration.

Nest Identification	
Shape	Location

Moss, mud, and dried leaves, with lining of fine rootlets • in fork of tree or shrub, usually 6–50 feet above ground (but generally 6–12 feet) • built by female • 2–5 unmarked pale blue or bluish green eggs; short oval to short subelliptical, slightly pointed at end, 1.0 x 0.75 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.7 ounces
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DATE _____ TIME _____ LOCATION _____

Family TURDIDAE

Species *Turdus merula*

Length 9.8–10.5 inches

Wingspan 15–16 inches

EURASIAN BLACKBIRD

The bright yellow-orange bill and completely black plumage of the male help identify this bird. It is a native of Eurasian forests, where it is common, but a specimen exists for Quebec. It was introduced and established in Australia and New Zealand. In all lands, native and otherwise, it inhabits the understory of wetter woodlands, gardens, parks, orchards, and trees along watercourses. Juvenile males are blackish with brown wings and a blackish bill.

• **SONG** Sings whistled, melancholy tune, often loudly and in measured phrases, each of which falls away. Calls of grating *chak-chak* or *terr-chock-chock*. Makes persistent *pink, pink* when alarmed.

• **BEHAVIOR** Solitary or in pairs. Moves on ground or limbs with vigorous hops, then stops, droops, and flicks wings and longish tail; cocks head to one side as if listening for worms. Jabs bill into ground for food. Eats earthworms, mollusks, insects, fruits, and berries. Strongly territorial and vocal when breeding.

• **BREEDING** Monogamous. Solitary nester.

• **NESTING** Incubation 13–15 days by female.

Altricial young leave nest at 12–15 days.

Brooded by female. Fed by both sexes. 2–3 broods per year.

• **POPULATION** Accidental in North America.

• **FEEDERS** Will come to fruits and birdbaths.

• **CONSERVATION** Protected by law in native range of Eurasia and Australia and New Zealand.

Flight Pattern

Swift flight with rapid wing beats and forward flip upward. Short flights alternate several rapid wing beats with brief periods when wings are pulled to sides.

Nest Identification

Shape  Location   

Made of plant stems, grass, twigs, leaves, and roots • lined with mud and a layer of flowering grass heads, pine needles, and dried leaves • on branch of tree or shrub or on ground • built by female • 4–7 light blue-green eggs with cinnamon-brown markings; oval to short oval, 1.1 x 0.8 inches.

Plumage Sexes differ

Habitat   

Migration Migratory

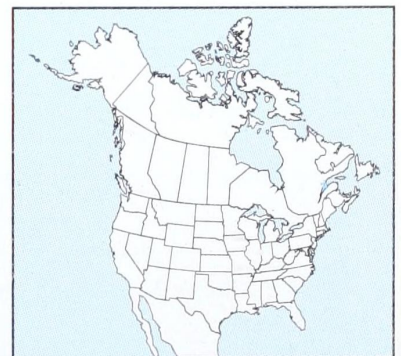
Weight 4.0 ounces



Similar Birds



EUROPEAN STARLING
Smaller; yellow bill; shorter tail; chunkier body; purplish and green sheen • in winter has dark bill and white spotting.



DATE _____ TIME _____ LOCATION _____

Family TURDIDAE	Species <i>Turdus pilaris</i>	Length 10 inches	Wingspan 15–16 inches
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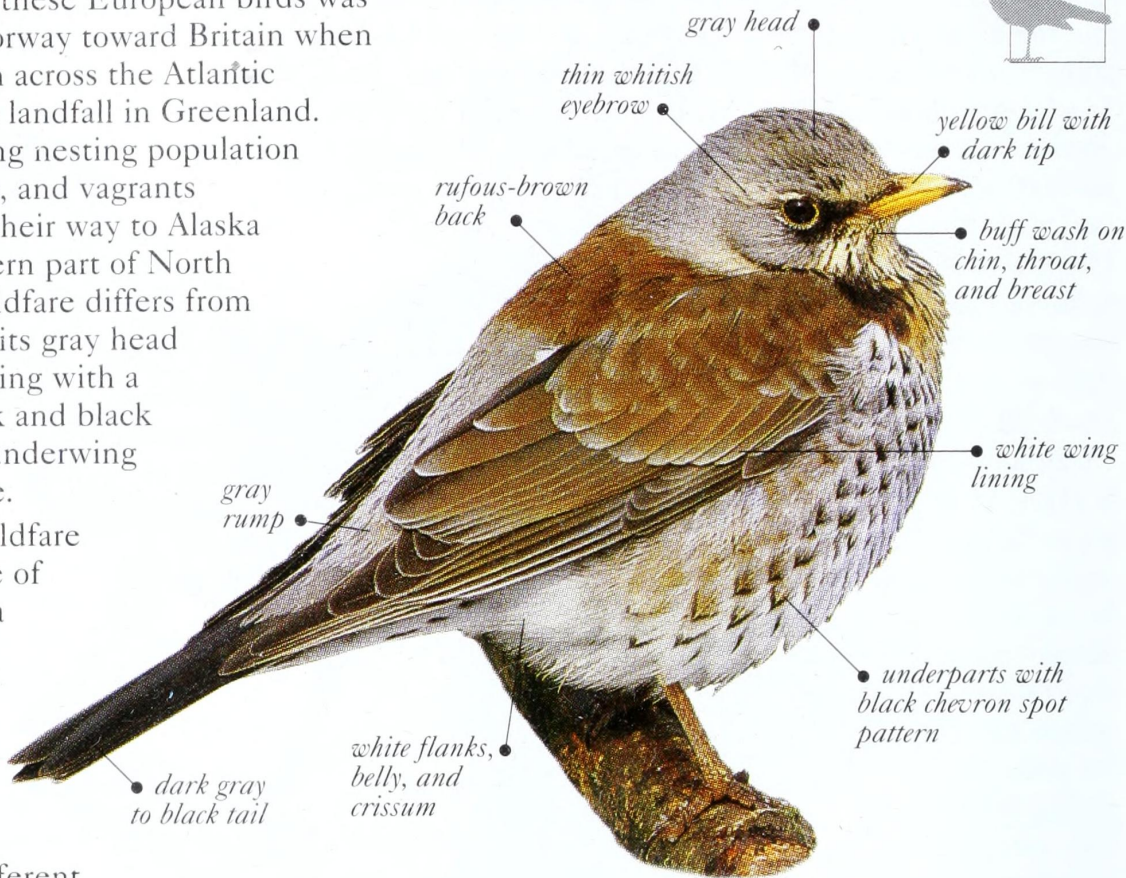
FIELDFARE

In 1937 a flock of these European birds was migrating from Norway toward Britain when a storm blew them across the Atlantic Ocean; they made landfall in Greenland. A small but thriving nesting population has survived there, and vagrants sometimes make their way to Alaska and the northeastern part of North America. The Fieldfare differs from other thrushes by its gray head and rump contrasting with a rufous-brown back and black tail. In flight the underwing linings show white.

• **SONG** The Fieldfare makes a repertoire of sounds. It makes a loud cackling. It also has a call of *shak-shak-shak*. Its song is a pieced-together series of variable squeaking and different chuckling sounds and noises.

• **BEHAVIOR** The Fieldfare is usually observed solitary or in pairs or small groups. This bird is gregarious in the nonbreeding season. The Fieldfare is noisy and conspicuous. It hops about on the ground while foraging for food by sight and gleans food from trees and shrubs. It eats insects, earthworms, slugs, berries, and fruits. The Fieldfare is a highly migratory and nomadic bird. It frequents woods and woodland edges in summer and open country, fields, and agricultural areas in winter.

- **BREEDING** Monogamous. Solitary to colonial nester.
- **NESTING** Incubation 13–14 days by female. Young altricial; brooded by female; stay in nest 14 days, fed by both sexes. 1–2 broods per year.



Similar Birds



REDWING
Rufous wash on underwings; brown head and rump; black spotted and streaked throat, breast, and sides; buffy eye stripe • casual to accidental in the East.

Flight Pattern

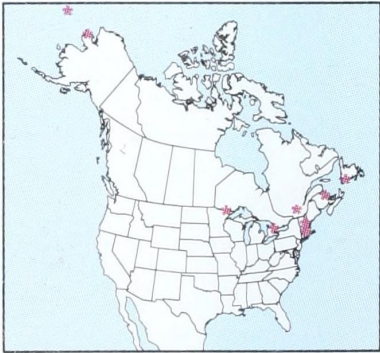
Swift strong direct flight on rapidly beating wings.

Nest Identification

Shape

Location

• **POPULATION** The Fieldfare is casual in Alaska and accidental elsewhere in North America. It is common in Siberia. The Fieldfare is also common to fairly common in the country of Greenland.



Mud, vegetation, and twigs • on ground or in low tree branch • built by female • 5–6 grayish or bluish green eggs, marked with reddish brown; oval to short oval, 0.8 x 0.6 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 3.8 ounces
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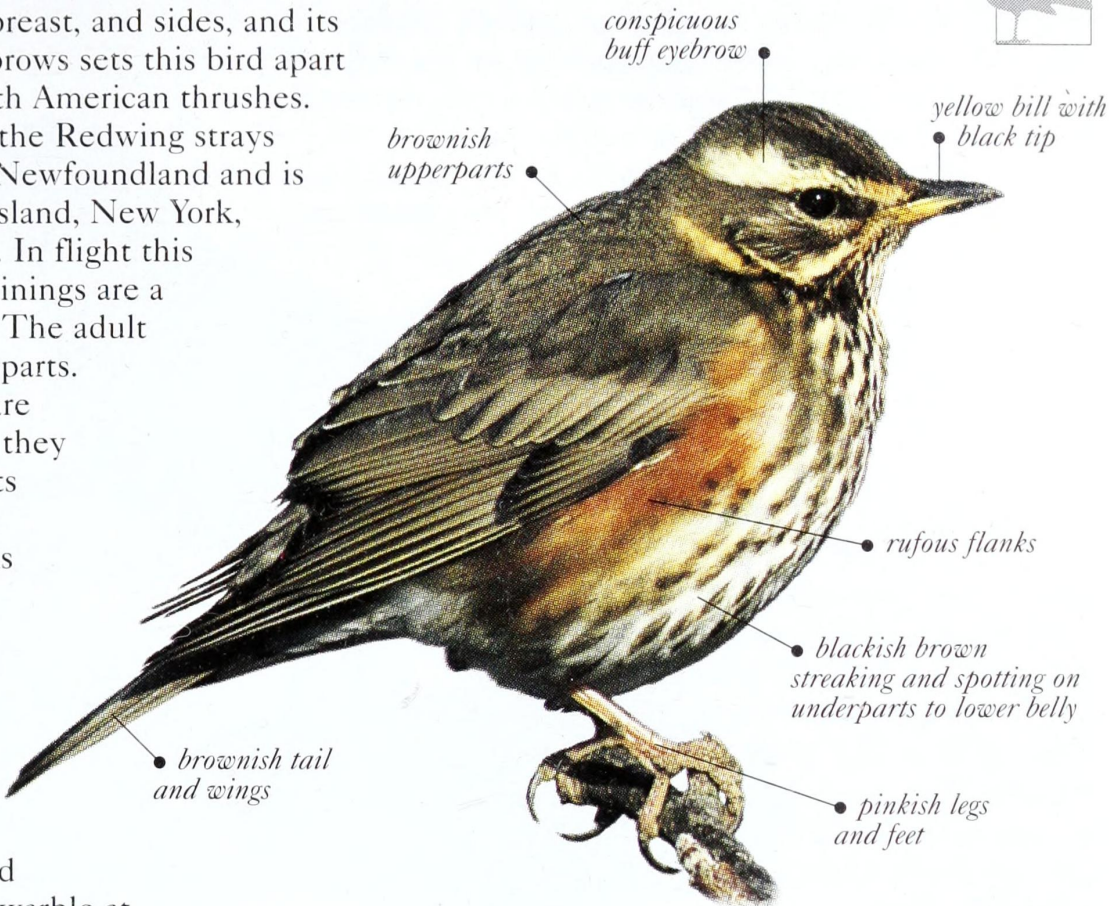
DATE _____ TIME _____ LOCATION _____

Family TURDIDAE	Species <i>Turdus iliacus</i>	Length 8.25 inches	Wingspan 13.5–14 inches
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REDWING

The combination of its rufous-red flanks, streaked and spotted throat, breast, and sides, and its distinctive buff eyebrows sets this bird apart from the native North American thrushes. A native of Eurasia, the Redwing strays occasionally to visit Newfoundland and is accidental to Long Island, New York, in the winter season. In flight this thrush's underwing linings are a deep orange-rufous. The adult also has white underparts. Juvenile Redwings are similar to adults but they have paler upperparts and also washed-out rufous on their flanks as well as on their underwings.

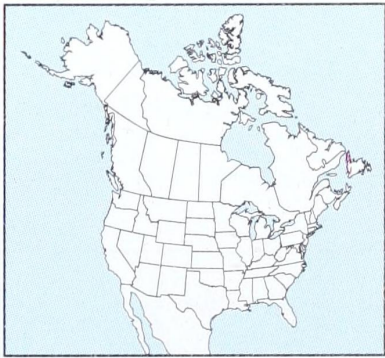
- **SONG** The Redwing sings a loud fluid song made up of 4–6 musical notes, often descending and followed by a softer warble at the end. This bird's calls include a high thin *seeeh*, often given in flight, and also a bold *kuck-kuck*.
- **BEHAVIOR** Usually observed solitary or in pairs. The Redwing is more gregarious in winter. It hops on the ground to forage for food and also gleans its food from branches and foliage. The Redwing feeds on insects, larvae, fruits, and berries. It is a thrush that frequents deciduous and mixed coniferous-deciduous woodlands in summer and open fields and thickets in winter.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 12–14 days by female. Young altricial; brooded by female; stay in nest 12–15 days, fed by both sexes.



Similar Birds



FIELDFARE
Gray head; gray rump; rufous-brown back; black tail; white underparts with buffy wash on throat and breast; black spotting and streaking on breast, sides, and flanks; white underwing linings.



Flight Pattern

Rather swift strong direct flight on rapidly beating wings.

Nest Identification

Shape

Location

Grasses, mud, and twigs • in shrub or branch of tree, 3–30 feet above ground • built by female • 5–6 bluish green eggs, spotted with red-brown; oval to short oval, 0.8 x 0.6 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 2.2 ounces
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DATE _____ TIME _____ LOCATION _____

Family TURDIDAE	Species <i>Turdus grayi</i>	Length 9 inches	Wingspan 14.75 inches
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CLAY-COLORED ROBIN

This native of Mexico and South and Central America makes rare visits to North America and has bred on occasion in southern Texas. It is most often seen in the lower Rio Grande Valley. Very similar in its habits to our American Robin, this bird has adapted to a wide variety of habitats, including dwelling in towns, villages, and cities, but it still is wary around humans. It is a yellow-billed robin with

olive-brown upperparts, buffy brown underparts, and a pale streaked throat. Juveniles are similar to adults but with some buffy spots on the upperwing coverts.

- **SONG** Slow long continuous caroling of various musical phrases such as *cheerily-cheer-up-cheerio*. Calls include a throaty *tock*, a slurred *reer-ee*, and a clucking note.

- **BEHAVIOR** Solitary or in pairs. Small flocks in fruiting trees. Somewhat shy and retiring. Upon alighting, spreads and closes tail while flipping it up and down. Hops and runs on the ground to forage, pushing litter aside with its bill; gleans food from branches and foliage low in trees. Eats insects, caterpillars, and some berries and fruits. Sometimes takes snails and small amphibians and reptiles. Defensive around nest and young.

- **BREEDING** Monogamous. Solitary nester.

- **NESTING** Incubation 12–14 days by female. Young altricial; brooded by female; stay in nest 13–15 days, fed by both sexes. 2 broods per year.

- **POPULATION** In North America, species is rare in southeastern Texas. Common to very common in Mexican range.

- **FEEDERS AND BIRDHOUSES** Comes to feeders for bananas and plantains; will visit birdbaths.

Flight Pattern



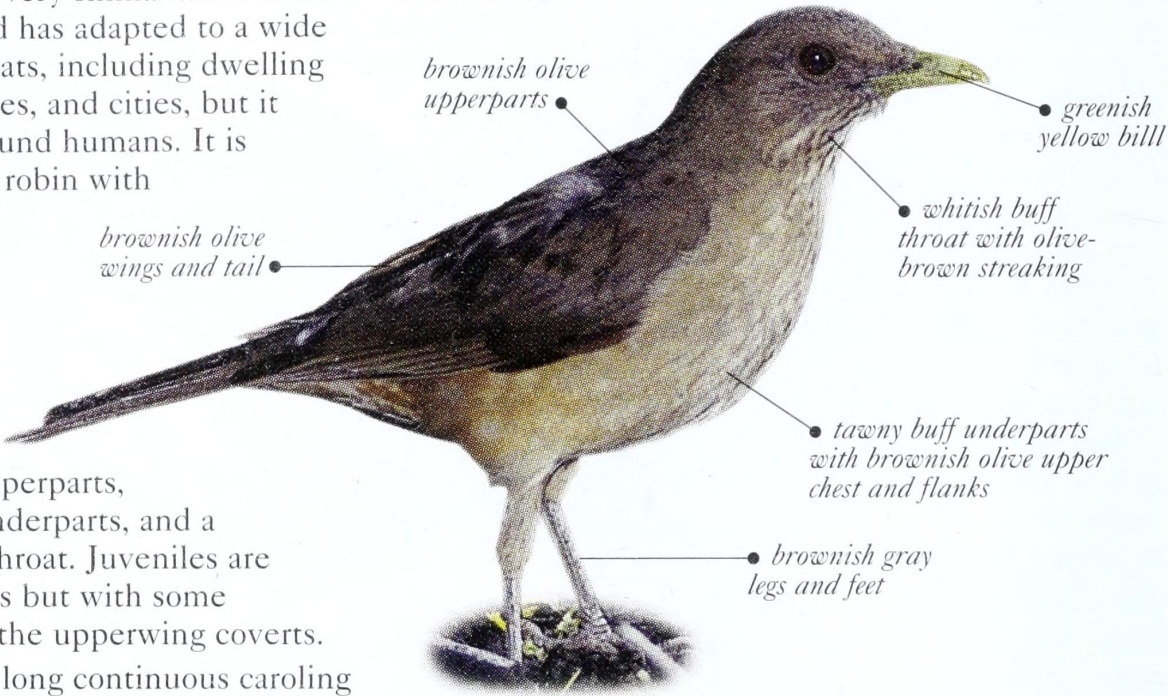
Swift direct flight with rapid wing beats.

Nest Identification

Shape 

Location  

Mud, grasses, and twigs • on low branch of tree or shrub • built by female • 2–4 pale blue eggs, with brown, gray, and reddish dots; oval to long oval, 1.1 x 0.8 inches.



Similar Birds

AMERICAN ROBIN
Brick-red breast; white belly and crissum; grayish brown upperparts; white throat with black streaking; broken white eye ring; white corners on blackish brown tail; yellow bill.



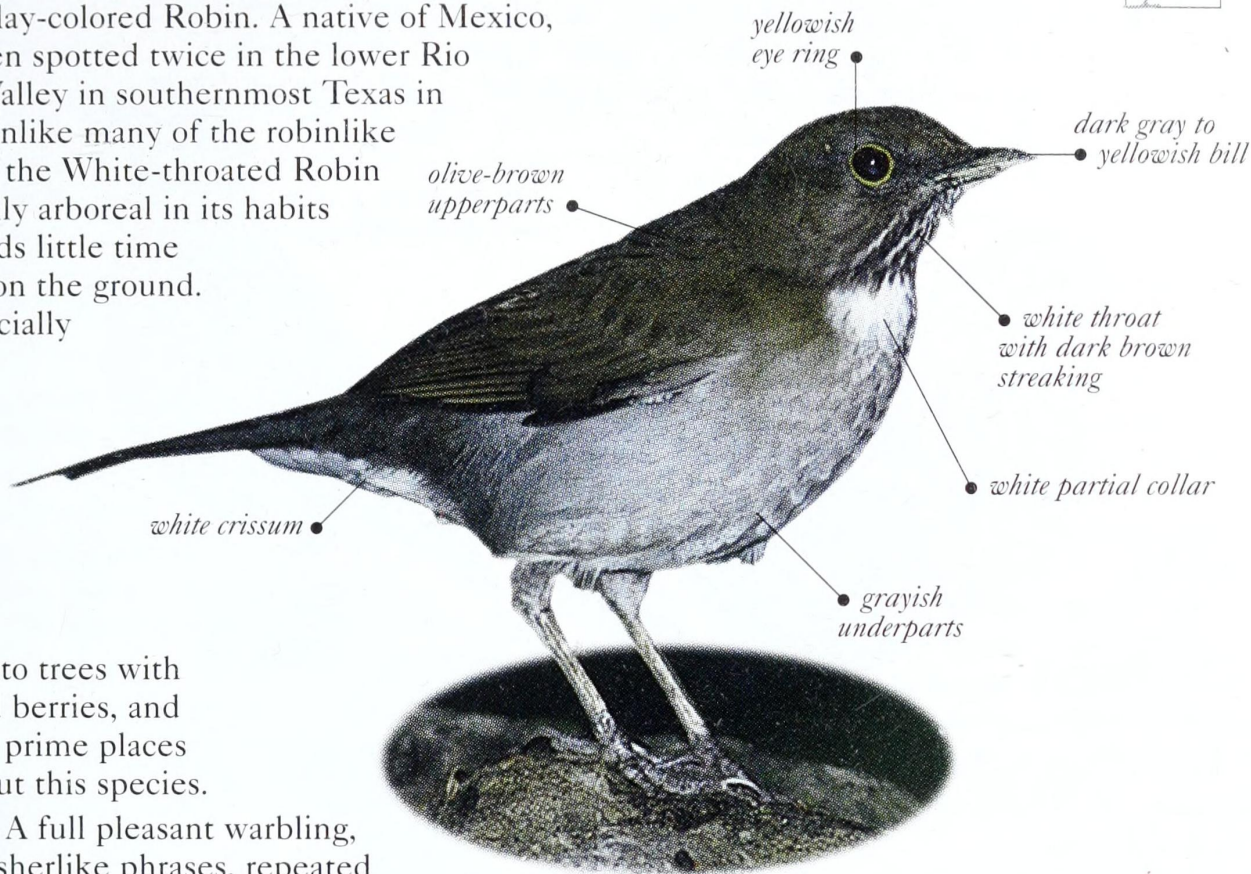
Plumage Sexes similar	Habitat     	Migration Nonmigratory	Weight 2.6 ounces
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DATE _____ TIME _____ LOCATION _____

Family TURDIDAE	Species <i>Turdus assimilis</i>	Length 9.5 inches	Wingspan 14.75–16.5 inches
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WHITE-THROATED ROBIN

Its white collar, darker bill, and dusky gray underparts distinguish this shy bird from the similar Clay-colored Robin. A native of Mexico, it has been spotted twice in the lower Rio Grande Valley in southernmost Texas in winter. Unlike many of the robinlike thrushes, the White-throated Robin is generally arboreal in its habits and spends little time foraging on the ground. It is especially



attracted to trees with fruits and berries, and these are prime places to seek out this species.

- **SONG** A full pleasant warbling, with thrasherlike phrases, repeated 2–3 times. Call is a throaty *kyow* or *reeuh-reeuh*.
- **BEHAVIOR** Solitary or in pairs or small flocks. Retiring but not secretive. Forages for food in all parts of the tree, spending much time from mid-levels in trees to canopy. Gleans insects, berries, and some fruits. In winter it frequently joins mixed-species feeding flocks. Males often sing from a high perch, sometimes in an exposed position. Species is relatively easy to observe as it forages in the open, high in the trees.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 12–14 days by female. Young altricial; brooded by female; stay in nest 14–16 days, fed by both sexes. 1–2 broods per year, may rarely have 3 broods.

• **POPULATION** Accidental in North America in riparian forest along Lower Rio Grande in southeastern Texas. Common to fairly common in native range in Mexico and southward to South America.

Flight Pattern

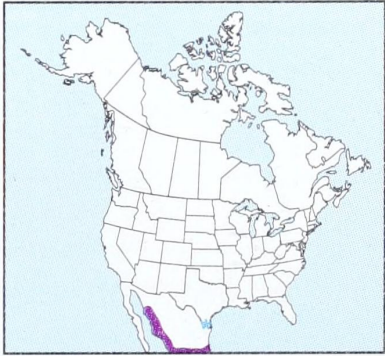
Swift direct flight on rapidly beating wings.

Nest Identification

Shape Location

Similar Birds

CLAY-COLORED ROBIN
Tawny underparts; paler, more yellow bill; white throat with olive-brownish striping; inconspicuous eye ring; olive-brown upperparts; lacks white collar.



Rootlets, grass, moss, and mud, with lining of finer materials • in tree or bush, mid to upper level • built by both sexes, but female does more • 2–4 light blue or whitish eggs, flecked with gray and reddish brown; oval to short oval, 1.0 x 0.75 inches.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 2.4 ounces
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DATE _____ TIME _____ LOCATION _____

Family TURDIDAE	Species <i>Turdus migratorius</i>	Length 10 inches	Wingspan 14–16 inches
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AMERICAN ROBIN

In many areas this bird is considered a sign of spring, though it is a year-round resident in most of its US range. It is among the most common, widely distributed,*and most well-known birds in North America. Juveniles are similar to adults but have heavily spotted underparts and white spotting and edging on the back and shoulders.

• **SONG** A bold gurgling leisurely *sing-song cheerily cheer-up cheerio*, with phrases often repeated. Has rapid call of *tut-tut-tut* or *hip-hip-hip*.

• **BEHAVIOR** Solitary or in pairs. Gregarious after breeding season; in winter often in flocks and roosts communally with other species. Eats earthworms, insects, and berries. Berries and fruits are principal diet in winter. Defensive of nest site and young. Adapted to human disturbance, especially agricultural areas and the combination of shade trees and lawns. Running-stopping foraging style in fields and lawns.

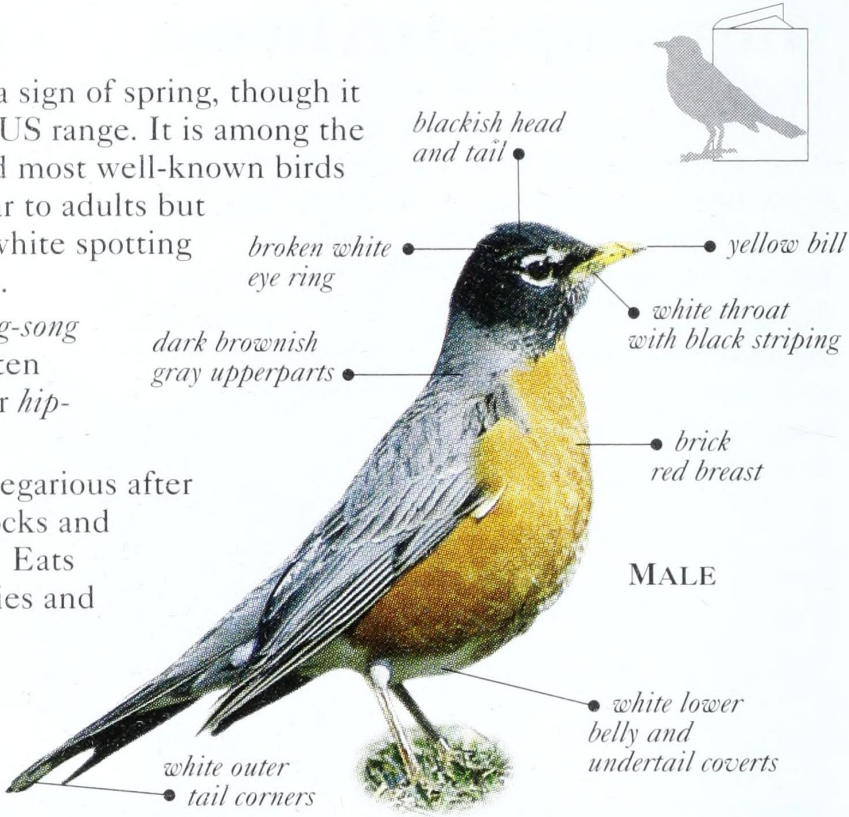
• **BREEDING** Monogamous. Solitary. Sometimes observed in loose colonies.

• **NESTING** Incubation 12–14 days by female. Altricial young brooded by female; stay in nest 14–16 days; female does more feeding. Male often tends first brood while female begins to incubate second clutch. 2–3 broods per year in south; fewer in north.

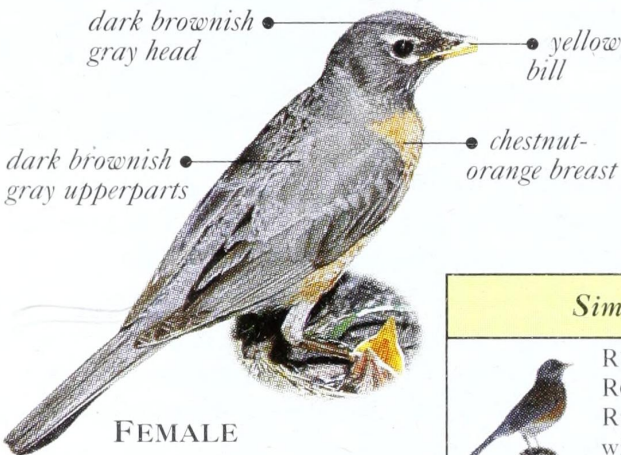
• **POPULATION** Abundant and widespread in variety of habitats, including forests, woodlands, gardens, and parks.

• **FEEDERS AND BIRDHOUSES** Will come to feeders for breadcrumbs. Attracted to birdbaths. Uses nesting shelves.

• **CONSERVATION** Neotropical migrant. Becoming more common in the Midwest and onto the Great Plains with planting of shelter belt trees and irrigation. Vulnerable to pesticide poisoning in the food chain.



MALE



FEMALE

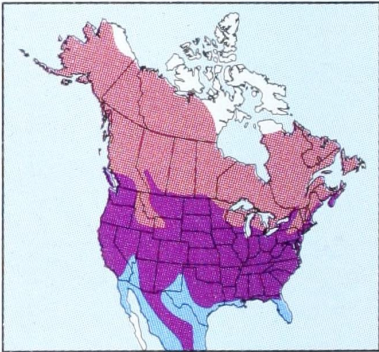


JUVENILE

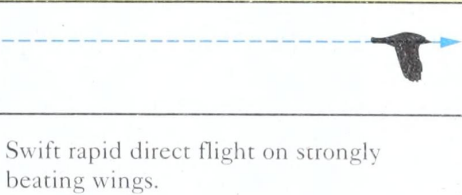
Similar Birds



RUFOUS-BACKED ROBIN
Rufous chest, back, and wing coverts; gray head and tail; heavy streaking on throat; yellow bill; yellow eye ring
• southwestern range.



Flight Pattern



Swift rapid direct flight on strongly beating wings.

Nest Identification

Shape



Location



Grasses and mud, with lining of fine grass • in all areas of tree, but with shelter from rain, or in building or nest shelf * female does more building • 3–7 pale blue eggs, occasionally white, usually unmarked, but occasionally flecked with brown; oval to short oval, 1.1 x 0.8 inches.

Plumage Sexes differ

Habitat

Migration Migratory

Weight 2.7 ounces

DATE _____ TIME _____ LOCATION _____

Family TURDIDAE

Species *Ixoreus naevius*

Length 9.5 inches

Wingspan 14–16 inches

VARIED THRUSH

This uniquely colored thrush, unlike the American Robin, frequents dense damp coniferous and deciduous forests and undergrowth as well as suburban lawns. It usually feeds and spends time on the ground, except when the male perches to sing his somewhat eerie song. One of the most strikingly colored thrushes, it has orange underparts, wing bars, and eyebrows. Females have a dusky brown cast to the upperparts and a dusky brown breast band. Juveniles are similar to the female but have a scaly appearance to the neck and breast and have white underparts.

• **SONG** A slow whistled mysterious-sounding caroling melody followed by fast prolonged warbling, first high, then low, and fading at the end. Has a soft low call of *chup*.

• **BEHAVIOR** Solitary or in pairs. Forages for food on ground and low in trees. Often remains hidden. Eats insects, caterpillars, berries, acorns, and sometimes seeds. Defensive of nest site and young. Responds readily to squeaking by birders.

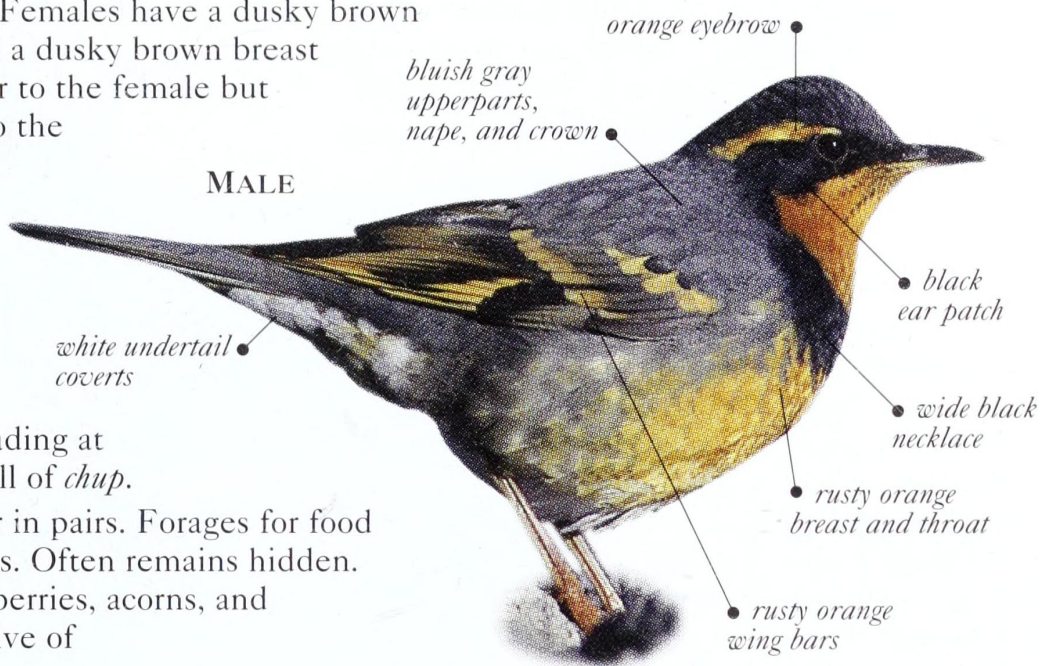
• **BREEDING** Monogamous. Solitary.

• **NESTING** Breeding biology poorly known. Incubation estimated at 12–14 days by female. Young altricial; brooded by female; leave nest at 13–15 days, fed by both sexes. 1–2 broods per year.

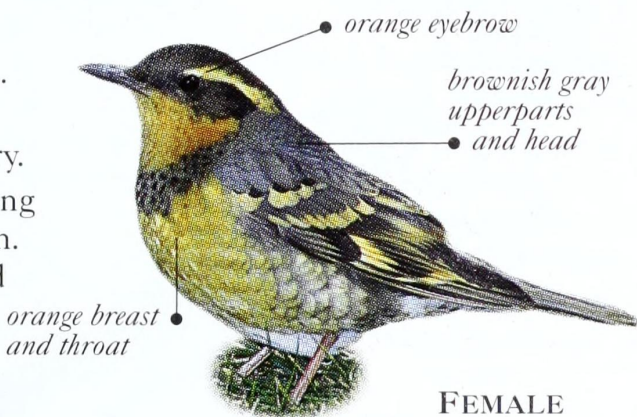
• **POPULATION** Common to fairly common in dense moist woodlands, particularly conifers. Rare winter visitor in the East to the Atlantic coast.

• **FEEDERS** Comes to feeders.

• **CONSERVATION** Vulnerable to loss of habitat and forest fragmentation due to logging and development.



MALE

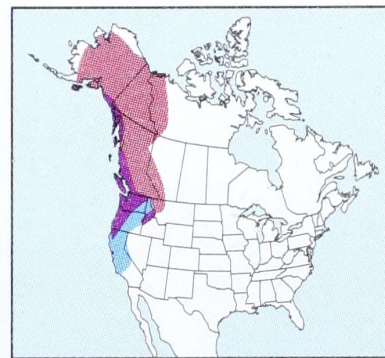


FEMALE

Similar Birds



AMERICAN ROBIN
Broken white eye ring; solid gray wings without wing bars; white throat with black striping; chestnut-orange underparts without breast band or scalloping; yellow bill; lacks orange eyebrow.



Flight Pattern



Swift rapid direct flight on rapidly beating wings.

Nest Identification

Shape

Location

Dried leaves, inner bark strips, and soft moss, reinforced with twigs, lined with grass and rootlets • on branch or fork of tree, usually 10–15 feet above ground (but up to 25 feet) • built by female • 2–5 pale blue eggs, flecked with browns; oval to long oval, 1.2 x 0.9 inches.

Plumage Sexes differ

Habitat

Migration Migratory

Weight Undetermined

DATE _____ TIME _____ LOCATION _____

Family TURDIDAE	Species <i>Ridgwayia pinicola</i>	Length 9.5 inches	Wingspan 14–16 inches
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AZTEC THRUSH

This elusive bird often perches high in the treetops, remaining still for hours at a time. A native of Mexico, it makes rare visits to North America and has been spotted in Arizona and Texas. In flight, note the broad white stripe at the base of the flight feathers. Females are similar to males but have lighter brown overall coloring with more streaking on the breast and throat. Juveniles are scalloped with brown on the underparts and heavily streaked with creamy white on the upperparts.

- **SONG** A tremulous slightly burry *wheerr* or *dweeeeir*, repeated steadily by the male. Calls are a quavering *wheeeeer*, a slightly metallic *wheer*, and a nasal to clear *sweee-uh*.
- **BEHAVIOR** Solitary or in pairs. Somewhat gregarious after breeding season, forming small groups or joining mixed flocks of up to 50 birds. Best detected by voice. Forages for food mostly in trees and shrubs, but sometimes forages on ground. Eats insects, fruit, and berries. Frequents pine and pine-oak forests.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Breeding biology poorly known. Estimated incubation 12–14 days by female. Young altricial; brooded by female; stay in nest estimated 13–15 days, fed by both sexes. 1–2 broods per year.

MALE



dark blackish brown overall

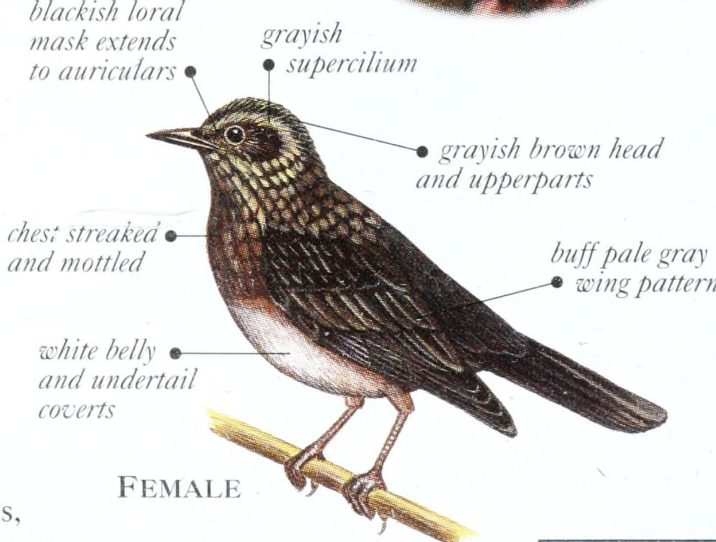
white pattern on wings

flanks mottled dark brown

white uppertail coverts

broad white tip on tail

FEMALE



blackish loreal mask extends to auriculars

grayish supercilium

grayish brown head and upperparts

buff pale gray wing pattern

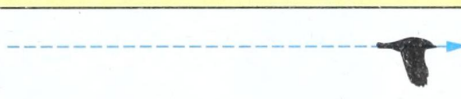
chest streaked and mottled

white belly and undertail coverts

JUVENILE



Flight Pattern



Swift rapid direct flight on quickly beating wings.

Nest Identification

Shape 	Location 
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Twigs, moss, grasses, and mud, with lining of finer materials • on branch or fork of tree, middle to upper level • built by female • 2–3 light blue eggs, unmarked; oval to long oval, 1.2 x 0.85 inches.

Plumage Sexes differ

Habitat 

Migration Nonmigratory

Weight Undetermined

DATE _____ TIME _____ LOCATION _____

Family MIMIDAE	Species <i>Dumetella carolinensis</i>	Length 8.5–9 inches	Wingspan 11–12 inches
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GRAY CATBIRD

Its black cap, long tail, and gentle mew-ing calls are helpful in identifying this tame gray bird. Frequenting thick undergrowth and bushes, it will reside in summer in the ornamental shrubs, thickets, and hedges in farmyards and towns. An accomplished songster with the quality of the other members of the mimic thrush family, it patterns its song with phrases, some squeaky, some melodious, but none repeated. The song is often interrupted with catlike mew-ing notes. This bird migrates at night. Although primarily migratory, birds on the coastal plain are nonmigratory.



- **SONG** A mixture of sweet to melodious, thin to squeaky, and sometimes abrasive phrases mixed with pauses. Does not repeat phrases like other eastern mimic thrushes. Some individuals mimic sounds of other birds, amphibians, and machinery, and incorporate them into their song. Distinctive *mew* notes often included in the phrases. Has call of quiet *mew*. Also a harsh *quit* or *chack*.
- **BEHAVIOR** Solitary or in pairs. Often stays low in thick bush and is easily overlooked. Relatively tame, frequently allowing a close approach. Sings from an exposed perch; sometimes sings at night. Often cocks tail upward and flicks from side to side. Gleans food from branches and foliage and picks it from ground. Eats mostly insects, spiders, berries, and fruits. Strongly defends nest and nestlings from predators and intruders. Uncommon cowbird host; recognizes their eggs and ejects them from nest. Often in loose flocks with other species in winter.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 12–13 days by female. Young altricial; brooded by female; stay in nest 10–11 days, fed by both sexes but more by male. 2 broods per year.
- **POPULATION** Common.

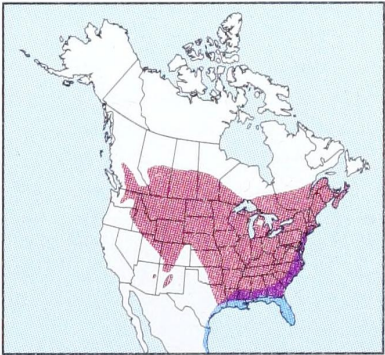
Similar Birds

No other bird in its range is slate gray above and below with a long tail.

Flight Pattern

Swift direct flight on rapid wing beats over some distance; short flights often with several rapid wing beats and a short period with wings pulled to sides.

- **FEEDERS** Cheese, bread, raisins, cornflakes, milk, cream, currants, peanuts, and crackers.
- **CONSERVATION** Neotropical migrant. Uncommon cowbird host.



Nest Identification

Shape Location

Grass, stems, twigs, and leaves, lined with fine materials • in shrub or tree, 3–10 feet above ground (as high as 50 feet) • built by both sexes but female does more • 2–6 dark blue-green eggs; subelliptical, 0.9 x 0.7 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.3 ounces
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DATE _____ TIME _____ LOCATION _____

Family MIMIDAE	Species <i>Melanoptila glabrirostris</i>	Length 7.5–8 inches	Wingspan 11 inches
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BLACK CATBIRD

The Black Catbird, which is endemic to the Yucatan Peninsula, the nearby islands of Mexico, and northern Central America, has on one rare occasion strayed from its tropical home and been spotted in North America in the US. Like most mimic thrushes, it perches to sing from a fairly prominent place, but it also skulks and hides in the interiors of thickets and dense brush. The Black Catbird's short slim black bill, glossy black plumage, and distinctively long black tail make it unmistakable in the field. Juveniles have duller black plumage overall.

- **SONG** A gruff, sometimes squeaky and sometimes musical, raspy warble of *clee to-who-week* or *te-che-wii*, repeated over



and over. The Black Catbird's call is a nasal *cheehr* sound.

- **BEHAVIOR** Solitary or in pairs. This is a shy and somewhat retiring bird. It usually stays hidden, except when it is singing. It generally forages for its food in trees, shrubs, and on the ground; it gleans from vegetation or picks food from the ground. This bird eats mostly insects, spiders, berries, and fruit. It is similar in shape, size, and behavior to the Gray Catbird.

- **BREEDING** Monogamous. Solitary nester.

Flight Pattern	
Long distance flight is swift and direct on rapidly beating wings. Short flights are on rapidly beating wings followed by brief tucking of wings to sides.	

Nest Identification	
Shape	Location

- **NESTING** Incubation 12–13 days by female. Young altricial; brooded by female; stay in nest 10–12 days, fed by both sexes but mostly by male. 1–2 broods per year.
- **POPULATION** Accidental in southeastern Texas.

Twigs, stems, and grasses, lined with finer materials • in shrub or low tree • built by both sexes • 2 pale greenish or blue eggs, often dotted with browns; oval to short oval, 0.9 x 0.7 inches.

Similar Birds



GRAY CATBIRD
Slate-gray plumage; black cap and tail; rusty undertail coverts.



Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 1.3 ounces
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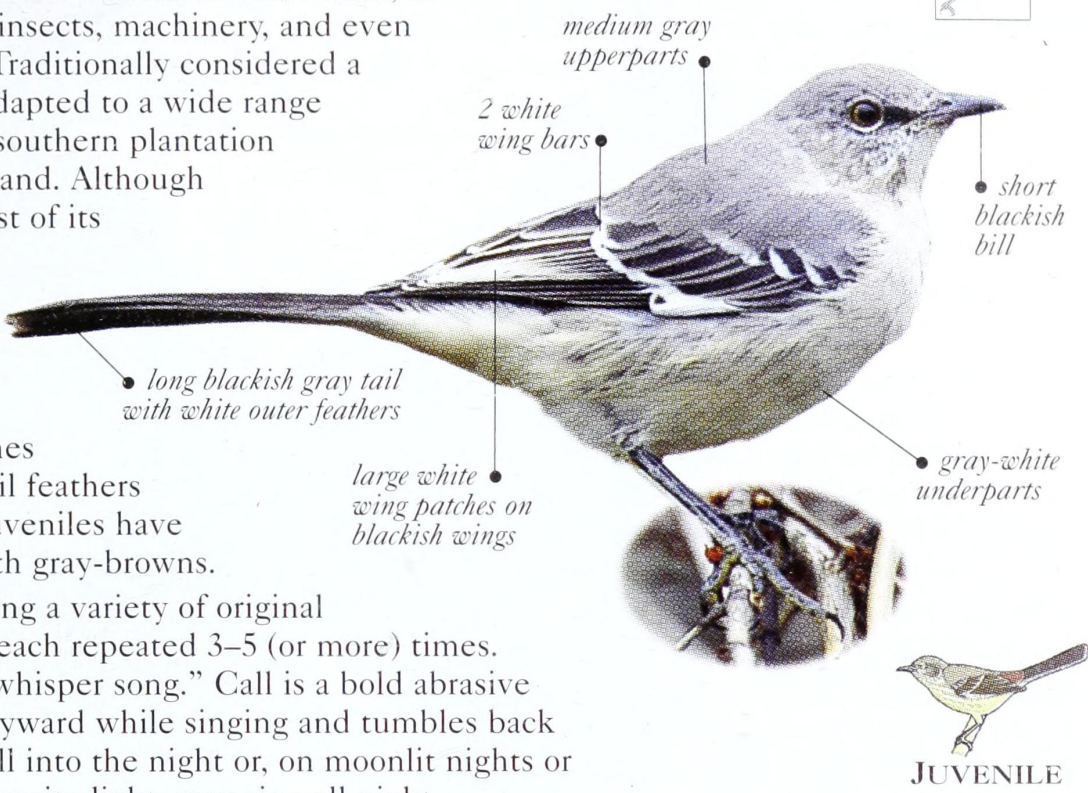
DATE _____ TIME _____ LOCATION _____

Family MIMIDAE	Species <i>Mimus polyglottos</i>	Length 10 inches	Wingspan 13–15 inches
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NORTHERN MOCKINGBIRD

True to its scientific name, *polyglottos*, meaning “many tongued,” this bird imitates dozens of other birds, as well as other animals, insects, machinery, and even musical instruments. Traditionally considered a southern bird, it has adapted to a wide range of habitats, from lush southern plantation gardens to dry cactus land. Although nonmigratory over most of its range, northernmost populations do migrate. When sparring with a rival or when in flight, the large white wing patches and the white outer tail feathers flash conspicuously. Juveniles have underparts spotted with gray-browns.

- **SONG** Perches to sing a variety of original and imitative sounds, each repeated 3–5 (or more) times. Also has an evening “whisper song.” Call is a bold abrasive *check*. Often flutters skyward while singing and tumbles back to perch. May sing well into the night or, on moonlit nights or under the glow of a security light, may sing all night.
- **BEHAVIOR** Solitary or in pairs. Conspicuous. Forages on ground and in bushes and trees. Lifts wings straight up with a jerky snap to bring insects out of hiding. Eats various insects and fruit. Very defensive during breeding season, especially close to the nest or young. Will attack larger birds and mammals that come too near. Sexes defend separate winter feeding territory. Has adapted well to disturbed habitats created by man and thrives in suburbs, towns, villages, and farmlands.
- **BREEDING** Monogamous. Solitary nester. Long-term pair bonds. Males perform display where they face one another and hop sideways, trying to keep other birds out of territory.
- **NESTING** Incubation 12–13 days by female. Young altricial; brooded by female; stay in nest 11–13 days, fed by both sexes. 2–3 broods per year.



Similar Birds	
	BAHAMA MOCKINGBIRD Larger; lacks white wing patches; browner upperparts; streaking on neck and flanks; white-tipped tail • eastern range.
	TOWNSEND'S SOLITAIRE Darker gray; white eye ring; buff wing patches; shorter bill; white outer tail feathers.

Flight Pattern

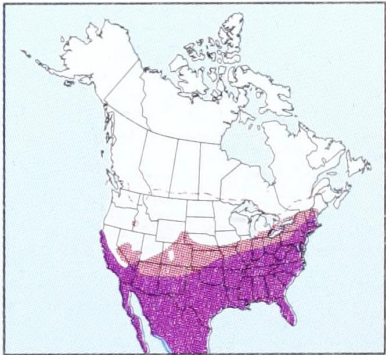
Long flight is swift and strong on steadily beating wings. Shorter flights with several quick wing strokes alternated with wings pulled to sides; repeated.

Nest Identification

Shape

Location

- **POPULATION** Common. Range is expanding north, particularly to the Northeast. Casual north of the mapped distribution range, sometimes as far north as Alaska.
- **FEEDERS** Will come for bread, suet, and raisins.



Sticks, stems, bits of fabric, dead leaves, and string, lined with finer materials • set in fork on branch of tree or shrub, usually 3–10 feet above ground • built by both sexes • 2–6 blue-green eggs, with splotches of brown; oval to short oval, occasionally short subelliptical, 1.0 x 0.8 inches.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 1.7 ounces
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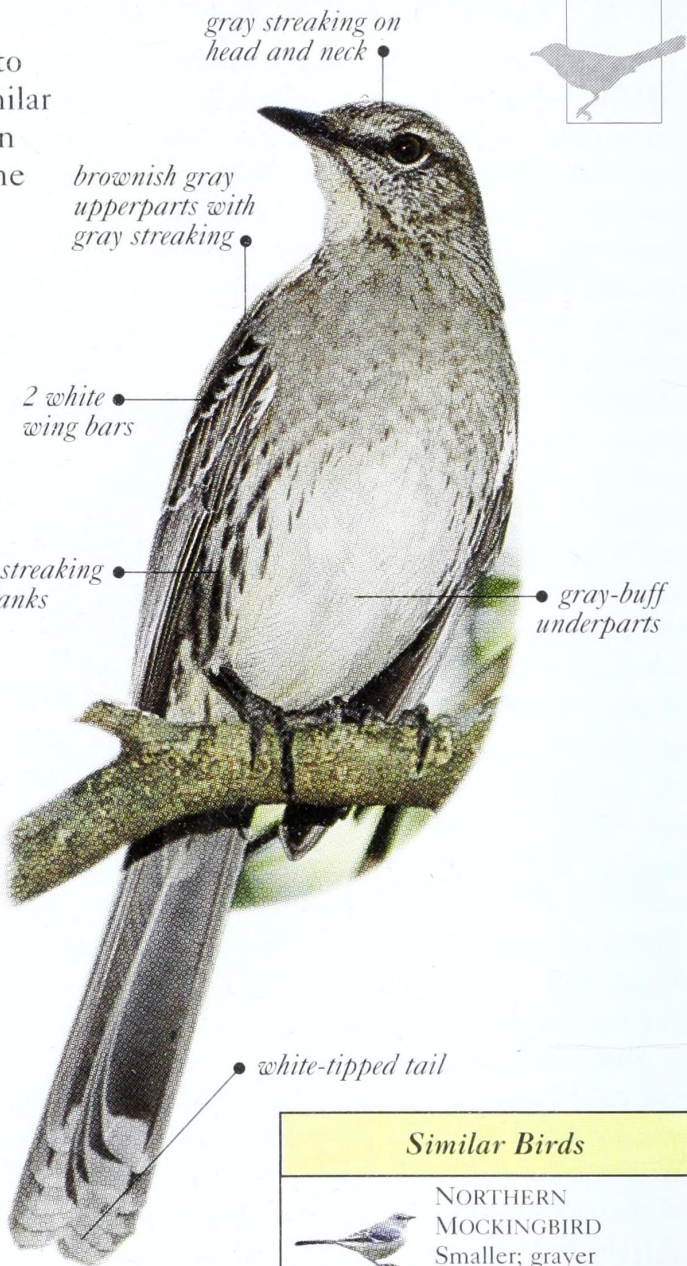
DATE _____ TIME _____ LOCATION _____

Family MIMIDAE	Species <i>Mimus gundlachii</i>	Length 11 inches	Wingspan 15.5 inches
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BAHAMA MOCKINGBIRD

This native of the West Indies is a rare visitor to the Florida Keys and southern Florida. It is similar to but larger than the Northern Mockingbird. In flight it lacks the large white wing patches of the Northern Mockingbird and the larger, more fan-shaped tail is white only on the tip. It mostly frequents thick scrubby areas but has also made itself at home in the towns, villages, parks, and gardens within its Caribbean range.

- **SONG** Sings a variety of musical melodies, which are loud and varied, but does not imitate other birds or animals. Certain characteristic notes recur with enough frequency to identify the singer, *cheewee, chipwee, chipwoo, cheewoo*. Call is a grating *check* or *chup*.
- **BEHAVIOR** Solitary or in pairs. Somewhat retiring, but male sings from a conspicuous perch, often fluttering straight up for several feet while singing, only to fall back to the perch. Eats various insects, spiders, berries, fruits, and occasionally small reptiles. Snaps wings up with a jerking movement to bring insects out of their hiding places.
- **BREEDING** Monogamous. Solitary nester. Males face one another on edge of territory, hop sideways, and try to prevent the other male birds from coming into territory.
- **NESTING** Incubation 12–13 days by female. Young altricial; brooded by female; stay in nest 10–12 days, fed by both sexes. 2–3 broods per year.
- **POPULATION** Rare in North America on Dry Tortugas, the Florida Keys (may have nested at Key West), and the mainland of southern Florida.



Similar Birds	
	NORTHERN MOCKINGBIRD Smaller; grayer plumage; white wing patches; white outer tail feathers on blackish tail; lacks streaking on neck, back, and flanks.

Flight Pattern	
Rather swift direct flight with purposeful wing strokes.	

Nest Identification	
Shape	Location
Sticks, stems, dried leaves, fiber, paper, bits of fabric, and string, with lining of finer materials • in fork of shrub or low in tree • built by both sexes • 2–6 creamy white or pinkish white eggs, with brown markings; oval to short oval, 1.0 x 0.8 inches.	

- **FEEDERS** Will come for raisins, suet, and bread.
- **CONSERVATION** Vulnerable to habitat loss on the Caribbean islands; perhaps some displacement on islands where Northern Mockingbird has been introduced.

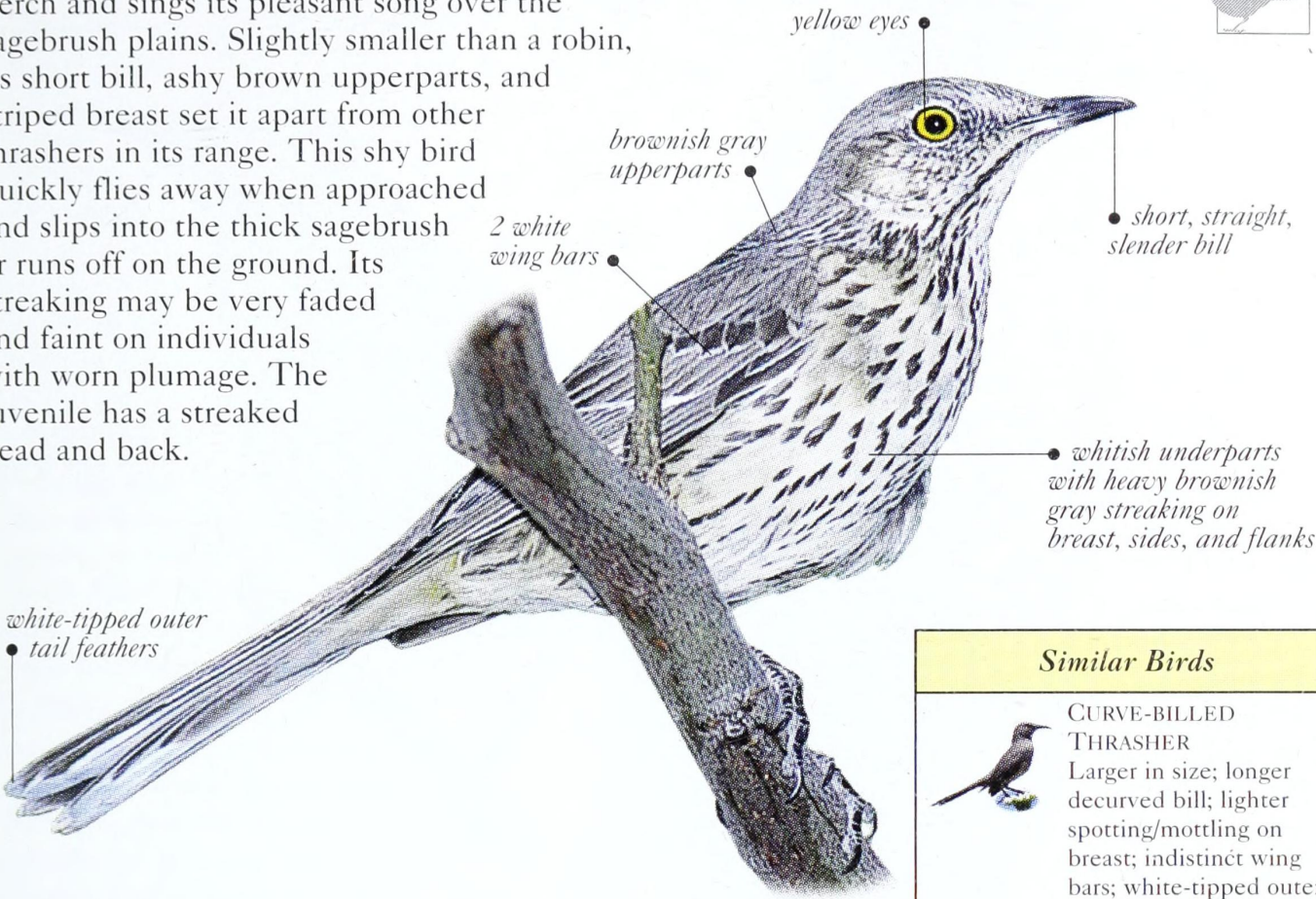


Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 2.4 ounces
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Family MIMIDAE	Species <i>Oreoscoptes montanus</i>	Length 8.5 inches	Wingspan 11.5 inches
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SAGE THRASHER

At dawn the male Sage Thrasher flies to a high perch and sings its pleasant song over the sagebrush plains. Slightly smaller than a robin, its short bill, ashy brown upperparts, and striped breast set it apart from other thrashers in its range. This shy bird quickly flies away when approached and slips into the thick sagebrush or runs off on the ground. Its streaking may be very faded and faint on individuals with worn plumage. The juvenile has a streaked head and back.



- **SONG** Perches to sing pleasant warbled phrases, continuously varied, sometimes repeated. Alarm call is *chuck-chuck*.
- **BEHAVIOR** Solitary or in pairs. Perches high in a conspicuous place to sing. Sometimes sings in flight. Shy and retiring. Terrestrial, spending considerable time on ground, where it moves quickly in searching for food. Feeds primarily on insects and fruit, which it gleans from soil or foliage.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 13–17 days by both sexes. Young altricial; brooded by female; stay in nest 11–14 days, fed by both sexes. 1–2 broods per year. Rejects cowbird eggs.

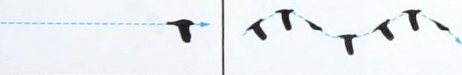
Similar Birds

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CURVE-BILLED THRASHER
Larger in size; longer decurved bill; lighter spotting/mottling on breast; indistinct wing bars; white-tipped outer tail feathers; buffy crissum.
- 

CACTUS WREN
Brown cap; broad white supercilium; long decurved bill; upperparts streaked rusty brown and white; whitish underparts heavily spotted with black; tawny-buff flanks, sides, and crissum; white band on tail.

Flight Pattern



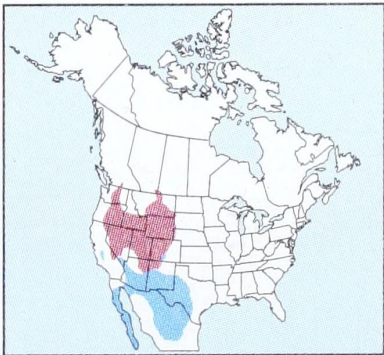
Fairly swift flight on shallow wing beats. For short flights, several rapid wing strokes are alternated with a brief period with wings pulled to sides; repeated.

Nest Identification

Shape 

Location 

- **POPULATION** Common to fairly common in sagebrush plains. Casual to accidental in the East and on Pacific Coast.
- **CONSERVATION** Neotropical migrant. Clearing of sagebrush flats has led to declining population.



Twigs, forbs, bits of bark, and leaves, lined with fine materials • in sage, other bush, or on ground • usually less than 3 feet above ground • built by both sexes • 4–7 deep or greenish blue eggs, heavily spotted with browns; oval to short oval, 1.0 x 0.8 inches.

Plumage Sexes similar	Habitat 	Migration Migratory	Weight 1.4 ounces
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DATE _____ TIME _____ LOCATION _____

Family MIMIDAE	Species <i>Toxostoma rufum</i>	Length 11.5 inches	Wingspan 12.5–14 inches
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BROWN THRASHER

This shy bird becomes highly aggressive when defending its young, often charging toward the head of any intruder. The male bird sings from an exposed perch, sometimes quite high. It is able to imitate other birds but most often sings its own song, which is a curious mixture of musical phrases. Its bright rufous upperparts and heavily streaked underparts distinguish this species from all other thrashers in its range. Although primarily migratory, birds in the South do not migrate.

• **SONG** Male sings conversation-like phrases of *hello, hello, yes, yes, who is this? Who is this? I should say, I should say*, with the varied phrases being given in two's and three's. Reported to have the largest song repertoire of all North American birds with more than 1,100 song types recorded. Call is a bold *smack* or *churr*.

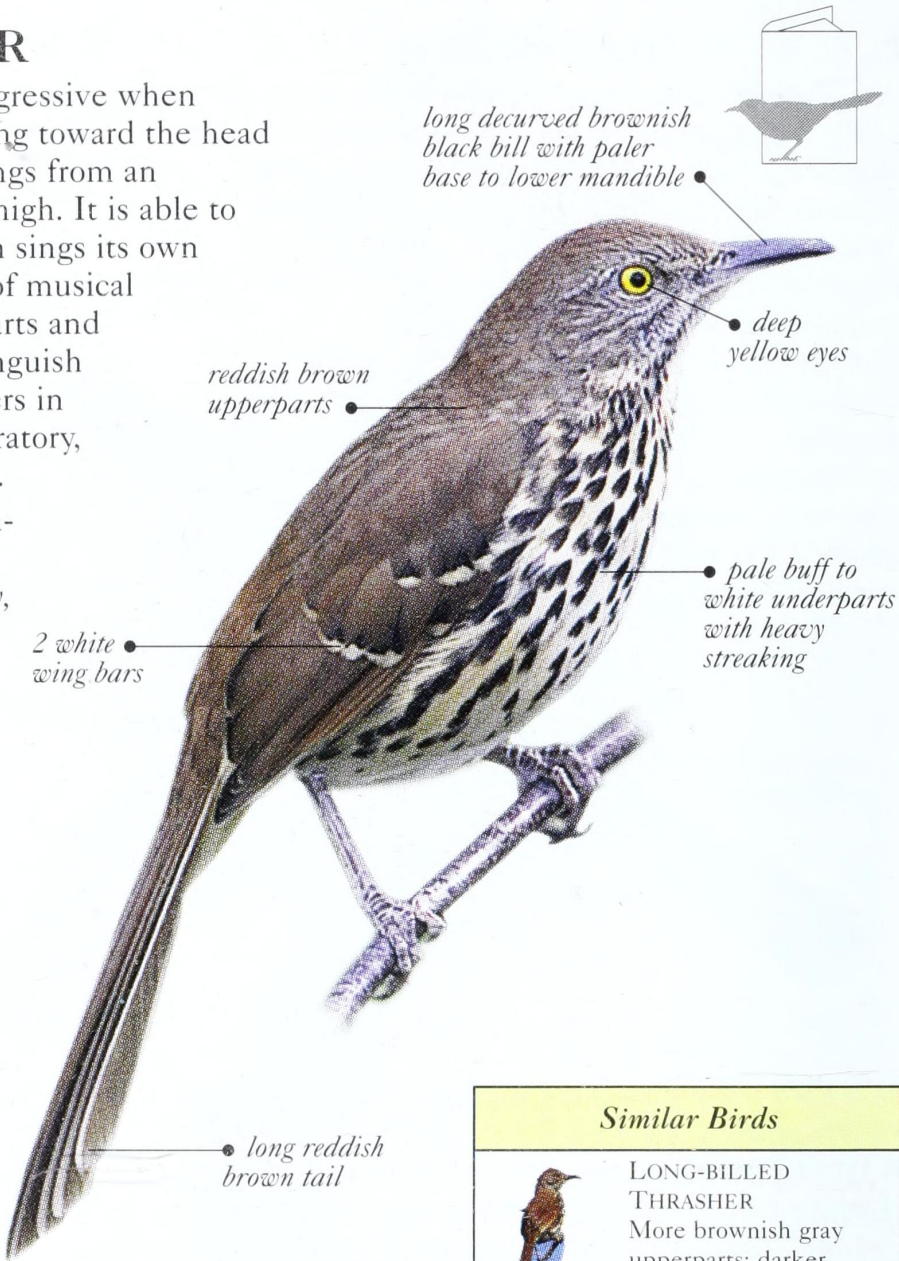
• **BEHAVIOR** Solitary or in pairs. Highly terrestrial; forages on or near ground for food. Finds insects by digging with bill. Eats mainly insects, small amphibians, fruit, and some grains. Runs quickly on ground; turns over leaves and moves debris with bill. Frequents dense brush, early successional stage woodlots, and forest edges. Has adapted to living in shrubby ornamental vegetation of suburbs and gardens.

• **BREEDING** Monogamous. Solitary nester.

• **NESTING** Incubation 11–14 days by both sexes. Young altricial; brooded by female; stay in nest 9–13 days, fed by both sexes. 2–3 broods per year.

• **POPULATION** Common to fairly common. Rare in the Maritimes and in the West.

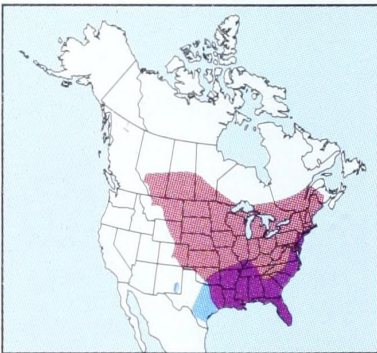
• **FEEDERS** Will sometimes tend feeders for raisins, suet, and bread.



Similar Birds



LONG-BILLED THRASHER
More brownish gray upperparts; darker streaking on creamy white underparts; 2 white wing bars; longer, more decurved bill; reddish orange eye; long gray-brown tail.



Flight Pattern	
Rather fast flight on shallow wing beats. Short flights are made with several rapid wing beats alternated with brief periods with wings pulled to sides; repeated.	

Nest Identification	
Shape	Location

Sticks, grasses, and dried leaves, lined with fine grasses • in bush, on ground, or in low tree, usually 1–10 feet above ground • built by both sexes • 2–6 pale bluish white or white eggs, with pale brown specks, occasionally wreathed; oval to short oval, 0.1 x 0.8 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 2.4 ounces
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DATE _____ TIME _____ LOCATION _____

Family MIMIDAE	Species <i>Toxostoma longirostre</i>	Length 11.5 inches	Wingspan 12.5–13.5 inches
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LONG-BILLED THRASHER

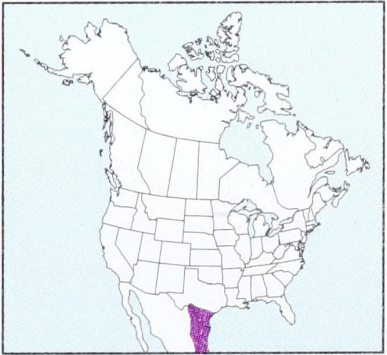
This native of eastern Mexico and southern Texas is similar to the Brown Thrasher in habit and appearance, but it has a longer, more decurved bill. Its plumage is more gray, although the time of year and the extent of the bird's molt of the feathers also can affect color. Highly terrestrial, foraging on or near the ground, it flies to a high open perch to sing. This bird is most at home in the dense undergrowth of river-bottom forests but also is found in the cactus and mesquite of drier uplands.

- **SONG** Male perches to sing conversation-like phrases, similar to the Brown Thrasher, in doubles and triples. Various calls of *tsuck*, a soft *kleak*, and a bold flutelike *cheeooep*.
- **BEHAVIOR** Solitary or in pairs. Terrestrial. Somewhat shy, retreating when approached. Runs on ground; forages for food on ground and low in trees and shrubs. Often finds insects by digging in ground with bill. Eats mostly insects, small amphibians, and fruit. Maintains interspecific winter territories with Brown Thrasher when both are present.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 13–14 days by both sexes. Altricial young brooded by female for just 2 days; leave nest at 12–14 days, fed by both sexes. 1–2 broods per year.
- **POPULATION** Common in brush and scrubland, bottomland willows, and dense forest habitat. Rare in western Texas. Accidental in New Mexico and Colorado.



Similar Birds

BROWN THRASHER
Shorter bill is not as decurved; more rusty brown upperparts; brown streaking on buffy underparts; white wing bars; long rufous-red tail; yellow eye.



Flight Pattern

Long flights are relatively swift on rapidly beating wings. Shorter flights with several fast shallow wing strokes alternated with brief periods with wings pulled to sides.

Nest Identification

Shape	Location
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Prickly sticks, with lining of straw and soft grasses • in middle of shrub, bush, or small tree, 4–10 feet above ground • built by both sexes • 2–5 blue-green or greenish white eggs, speckled with reddish brown, occasionally wreathed; ovate to short oval, 1.1× 0.8 inches.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 2.4 ounces
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DATE _____ TIME _____ LOCATION _____

Family MIMIDAE	Species <i>Toxostoma curvirostre</i>	Length 11 inches	Wingspan 14 inches
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CURVE-BILLED THRASHER

Fond of water, the Curve-billed Thrasher is often observed in birdbaths, near dripping faucets, and near other water sources, which often are in scant supply in the desert and semiarid brushlands this bird inhabits, especially those with cholla cactus and mesquite. A nonmigratory bird, the Curve-billed Thrasher is a year-round resident that rarely wanders from its range, centered in the southwestern United States and Mexico.

The most common of the desert thrashers, it displays a curved black bill, spotted underparts, buffy undertail coverts, and bright orange eyes in the adult. Some individuals have thin white wing bars. The westernmost race has indistinct spotting. Juveniles have straighter bills and yellow eyes.

- **SONG** Calls include a sharp *whit-wheet*, which sometimes includes 3 notes. Song is melodic, varied, and intricate, often with low trills and warbles, often with 2–3 repetitions of phrases.
- **BEHAVIOR** Solitary or in pairs. Terrestrial. Often conspicuous and noisy. Searches for insects by digging vigorously into the ground with bill. Also eats spiders, small reptiles, snails, fruits (especially cactus fruits), seeds, and berries. Mates remain paired throughout the year, often reusing the same nest. May build roosting platform in winter that becomes nest in spring.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 12–15 days by both sexes, but mostly by female; female incubates at night and also trades off with male during the day. Young altricial; brooded by female (often to shade them from sun); remain in nest 11–18 days, fed by both sexes. 2 broods per year.

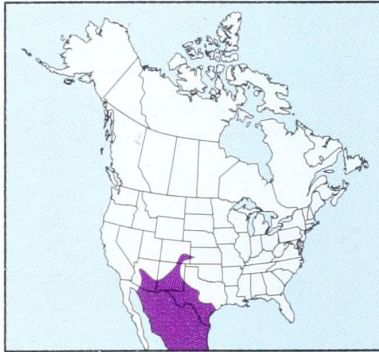


Similar Birds

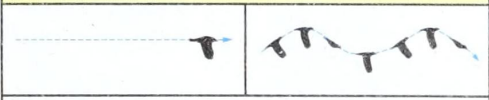
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BENDIRE'S THRASHER
Smaller and more slender; shorter, less straight bill; yellow eyes; triangular or arrowhead-shaped markings on underparts; different call note.
• only in the West.
- 

SAGE THRASHER
Smaller; yellow eyes; short straight slender bill; whitish underparts; heavy brownish gray streaks on breast, sides, and flanks; 2 white wing bars; white-tipped outer tail feathers.



Flight Pattern



Long flights are swift and direct on rapidly beating wings. Shorter flights are several rapid shallow wing beats followed by brief periods of wings at sides or short glide.

Nest Identification

Shape 	Location 
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Lined with fine materials, including twigs and grass • often found 2–8 feet above ground in shrub, cactus, or tree • built by both sexes • 1–5 pale blue-green eggs, with pale brown spots, rarely wreathed; ovate to short ovate or elliptical ovate, 1.2 x 0.8 inches.

- **POPULATION** Common. Small declines in Texas but still abundant farther west. Casual in southeast California and north and east of its permanent range.
- **FEEDERS** Will come to water and to feeders with fruit.

Plumage Sexes similar	Habitat   	Migration Nonmigratory	Weight 2.8 ounces
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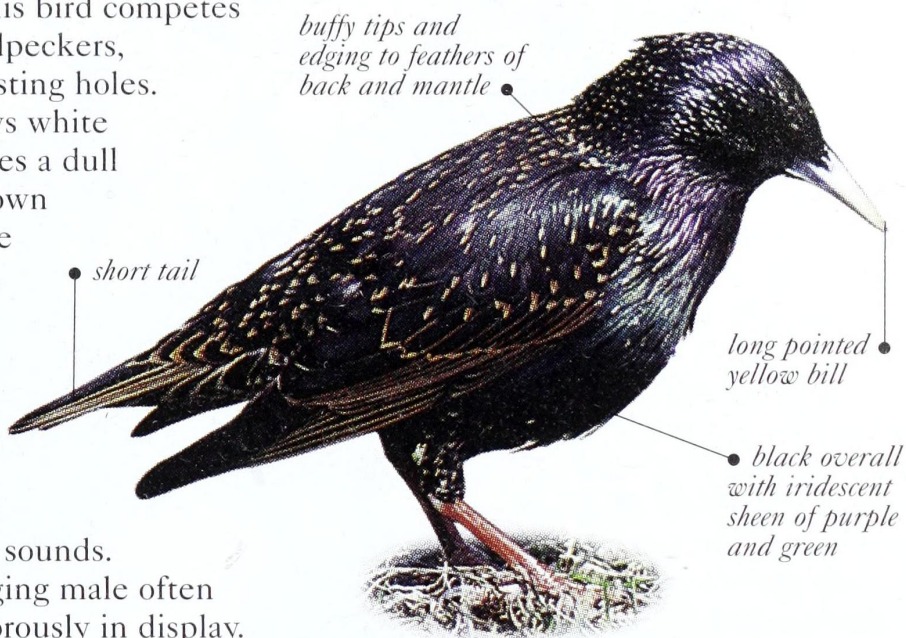
DATE _____ TIME _____ LOCATION _____

Family STURNIDAE	Species <i>Sturnus vulgaris</i>	Length 8.5 inches	Wingspan 15.5 inches
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EUROPEAN STARLING

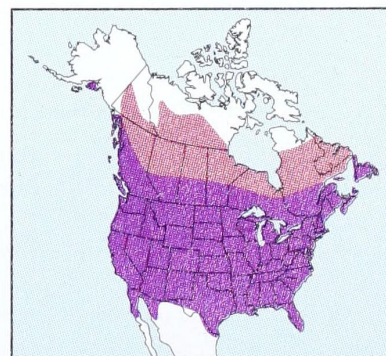
This chunky Eurasian species was introduced to North America in 1890 in New York City's Central Park and has become so well established that large flocks have in some cases become a nuisance, roosting in cities and towns from coast to coast and north into Canada to the tree line. Tenacious in nature, this bird competes with native species such as woodpeckers, flycatchers, and bluebirds for nesting holes. This bird's winter plumage shows white specks and its yellow bill becomes a dull gray. Juveniles are sooty gray-brown overall with pale streaking on the underparts and a dull brown bill.

- **SONG** Sings various trilling melodies, clear whistles, clatters, and twitters in groups. Imitates songs of other birds, including Eastern Wood-Pewee and Northern Bobwhite, as well as mechanical sounds. Also has a flutelike *pheeEW*. Singing male often stands erect and flaps wings vigorously in display.
- **BEHAVIOR** Solitary or in pairs in breeding season. Juveniles form foraging flocks. Gregarious after breeding season, forming flocks with juveniles for foraging and roosting. Joins other species in winter roosts, which may number more than a million birds. Most often feeds in open areas, primarily on the ground. Eats various insects, fruits, and grains. The muscles that open its bill are stronger than those that close it, a unique trait that allows this bird to insert its bill in vegetation or into the ground and then pry it open to reveal food.
- **BREEDING** Monogamous. Often forms loose colonies. Some individual males polygynous. Aggressive in claiming nesting chambers.
- **NESTING** Incubation 12–14 days by both sexes, but female does more. Young altricial; brooded by female; stay in nest 18–21 days, fed by both sexes. First flight at about 26 days. 2–3 broods per year.
- **POPULATION** Common. Stable over most of continent; perhaps still expanding range north and south.
- **FEEDERS AND BIRDHOUSES** Will come for bread, peanut butter, suet, and small seeds. Uses bluebird-sized or larger nest boxes.



Similar Birds

No native species of blackbird has yellow bill; short tail; chunky body; buffy streaking on back and wing coverts; and a notched tail.



Flight Pattern



Strong swift direct flight on rapidly beating wings.

Nest Identification



Grass, twigs, forbs, rootlets, and straw • in natural hollow of tree, bird box, crevice in man-made structure, or abandoned woodpecker hole, 10–25 feet above ground (but up to 60 feet) • built by both sexes • 4–8 pale bluish or greenish white eggs, usually unmarked, but sometimes marked with browns; short oval to long oval, 1.2 x 0.8 inches.

Plumage Sexes similar	Habitat	Migration Northern birds migrate	Weight 3.0 ounces
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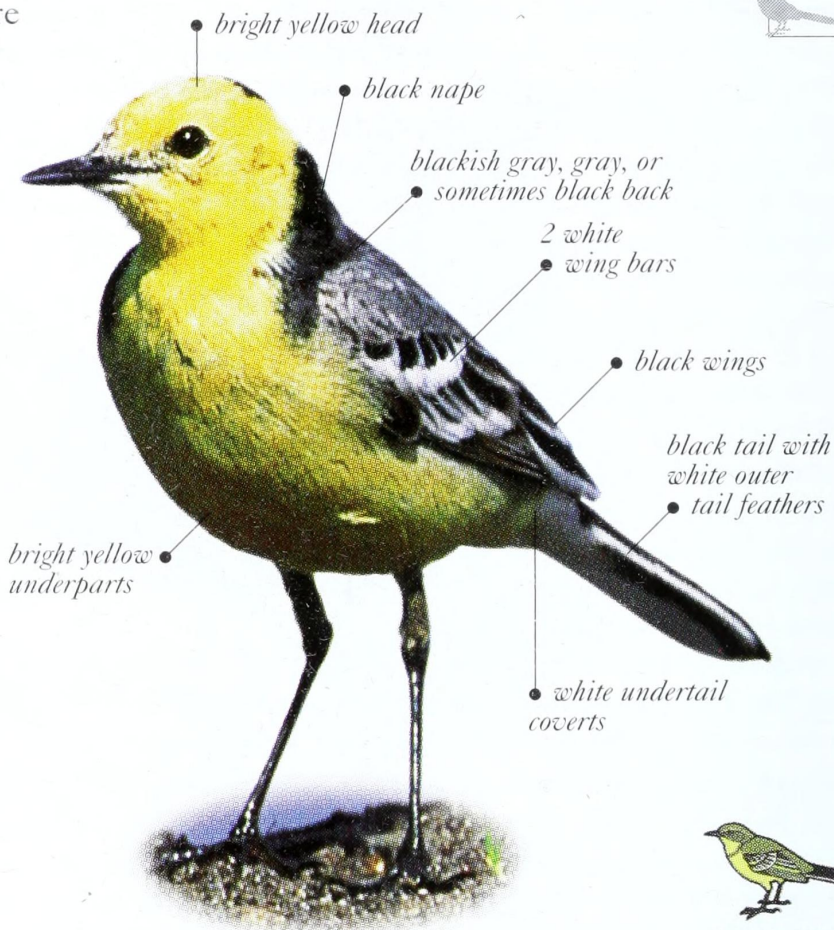
DATE _____ TIME _____ LOCATION _____

Family MOTACILLIDAE	Species <i>Motacilla citreola</i>	Length 6.25 inches	Wingspan 9 inches
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CITRINE WAGTAIL

Found deep in the damp meadows and grassy marshes of Eurasia, where it makes its native home, this small citrus-colored bird has only once been found in North America. And it was not found in the most likely places near the Aleutian or the Pribilof islands, or perhaps on the coast of Alaska, rather it was found near Starkville, Mississippi. The female Citrine Wagtail is similar to the male but has a duller overall coloring and a greenish gray top to her head, rather than the bright yellow head coloring of the male. Juveniles are very similar to juveniles of the Yellow Wagtail and are perhaps indistinguishable from that bird in the field.

- **SONG** The Citrine Wagtail male gives a series of bold short chirps when it is in its characteristic skylarking flight. Its call is a loud *tsuile*.
- **BEHAVIOR** This wagtail pairs in breeding season; it is very gregarious at most other times, generally forming flocks. The Citrine Wagtail forages for food on the ground and also in low trees, where it gleans from the foliage. It feeds primarily on a variety of insects and also on worms and some fruits. The Citrine Wagtail typically can be found perching on bushes and on grass stems when it is not foraging for food. Generally in its native range this bird is found in habitats that are wet or near water.
- **BREEDING** Monogamous. Solitary nester.

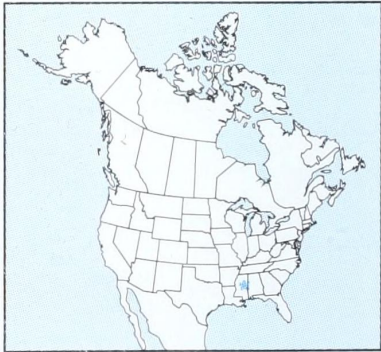


JUVENILE

Similar Birds



YELLOW WAGTAIL
Olive-green back and rump; white edging on wing coverts and flight feathers; yellow undertail coverts; gray nape and crown; white throat in breeding season • western range.



Flight Pattern



Several rapid wing strokes alternating with wings pulled to sides.

- **NESTING** Incubation 14–15 days by both sexes. Young altricial; brooded by female; stay in nest 13–15 days, fed by both sexes. 1 brood per year.
- **POPULATION** Accidental in North America.

Nest Identification

Shape Location

Plant stems and moss with lining of leaves, hair, and feathers • sheltered by grassy tussock • built by female • 4–5 ocherous or light blue eggs, with fine brown speckling; subelliptical, 0.77 x 0.57 inches.

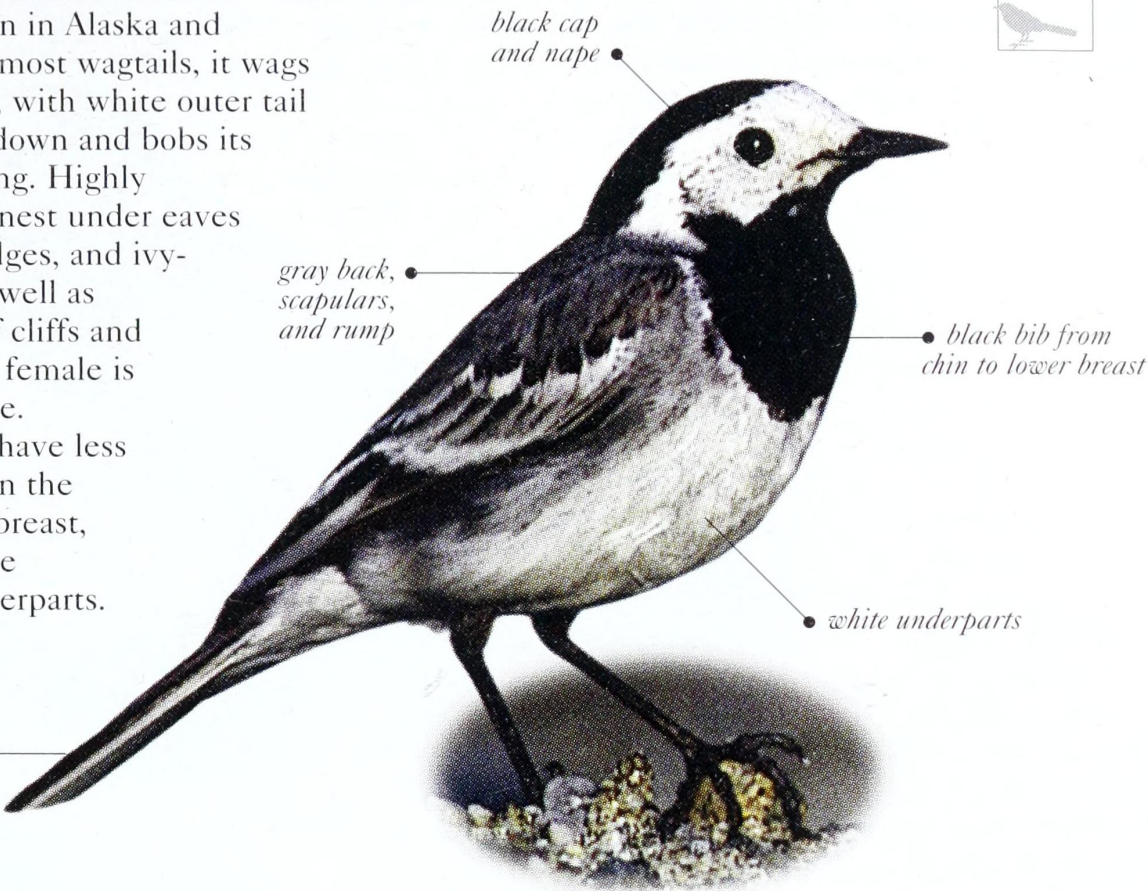
Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.7 ounce
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DATE _____ TIME _____ LOCATION _____

Family MOTACILLIDAE	Species <i>Motacilla alba</i>	Length 6.5–7.25 inches	Wingspan 8.5–10 inches
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WHITE WAGTAIL

This Eurasian bird has a small but stable nesting population in Alaska and Greenland. Like most wagtails, it wags its long black tail, with white outer tail feathers, up and down and bobs its head while walking. Highly adaptable, it will nest under eaves of houses, on bridges, and ivy-covered walls, as well as natural cavities of cliffs and banks. The adult female is similar to the male. Wintering adults have less extensive black on the chin, throat, and breast, and juveniles have mostly white underparts.



- **SONG** Sings an energetic trilling twitter with notes similar to its call notes, which sound like *chizzik-chizzik*.
- **BEHAVIOR** Solitary or in pairs; in flocks in migration and winter. Forages for food on ground, on and around rocks, and in shallow water. Eats mostly insects and snails. Frequents wetlands, shores of lakes, ponds, rivers, and inhabited areas, including agricultural areas.
- **BREEDING** Monogamous. Solitary. Courting male chases female until she notices him, then he shows off his shining black neck.
- **NESTING** Incubation 12–14 days by both sexes, but female does more. Young altricial; brooded by female; stay in nest 14–16 days, fed by both sexes. 1–2 broods per year.

Flight Pattern

Several rapid wing beats alternated with wings drawn to sides; repeated.

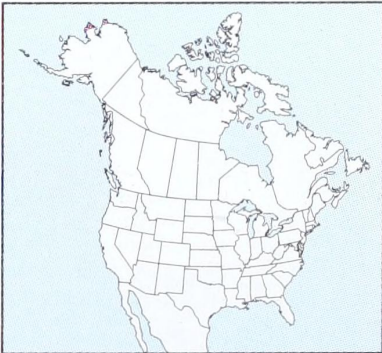
Nest Identification

Shape	Location

Grass, forbs, leaves, roots, twigs, lichen, and moss, lined with grass, hair, and feathers • in cavity or ridge of cliff, bank, bridge, or building, 3–10 feet above ground • sometimes on ground sheltered by grassy tussock or tree roots • built by female • 4–8 grayish or bluish white eggs, with gray or brown speckles; subelliptical, 0.8 x 0.6 inches.

Similar Birds

BLACK-BACKED WAGTAIL
In flight, shows mostly white wings with black tips to outer primaries
• breeding adult has black back • winter adult has black U-shaped patch encircling breast from side of head.



Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.7 ounce
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DATE _____ TIME _____ LOCATION _____

Family MOTACILLIDAE	Species <i>Motacilla lugens</i>	Length 7.25 inches	Wingspan 10 inches
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BLACK-BACKED WAGTAIL

This slender long-tailed native of Asia reaches the Western Hemisphere by making regular spring and summer visits to the western Aleutian Islands. Occasionally these birds also nest in the Aleutians. Although the Black-backed Wagtail is very similar to the White Wagtail in appearance, its upperparts are black instead of gray when the bird is in breeding plumage. The long tail is black with white outer tail feathers, which is conspicuous in flight, as are the almost entirely white wings. Winter plumage shows a white throat with a black necklace. Juveniles resemble adults but are gray without black markings on head, upperparts, or breast. This bird frequents wetlands, river banks, and lake shores.

- **SONG** Sings a lively warbling melody. Call is a *chuchun*, *chuchun*, often given in flight.
- **BEHAVIOR** Solitary or in pairs. Gregarious in migration and winter, often roosting in large flocks at night. Walks on ground, often pumping long tail up and down repeatedly, moving the head backward and forward in characteristic manner. May change its gait to a fast jerky run. Feeds actively on ground and in shallow waters. Eats mostly insects and snails. Sometimes nests around human habitation.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 13–15 days by both sexes, but female does more. Young altricial; brooded by female; stay in nest 12–15 days, fed by both sexes. 1–2 broods per year.

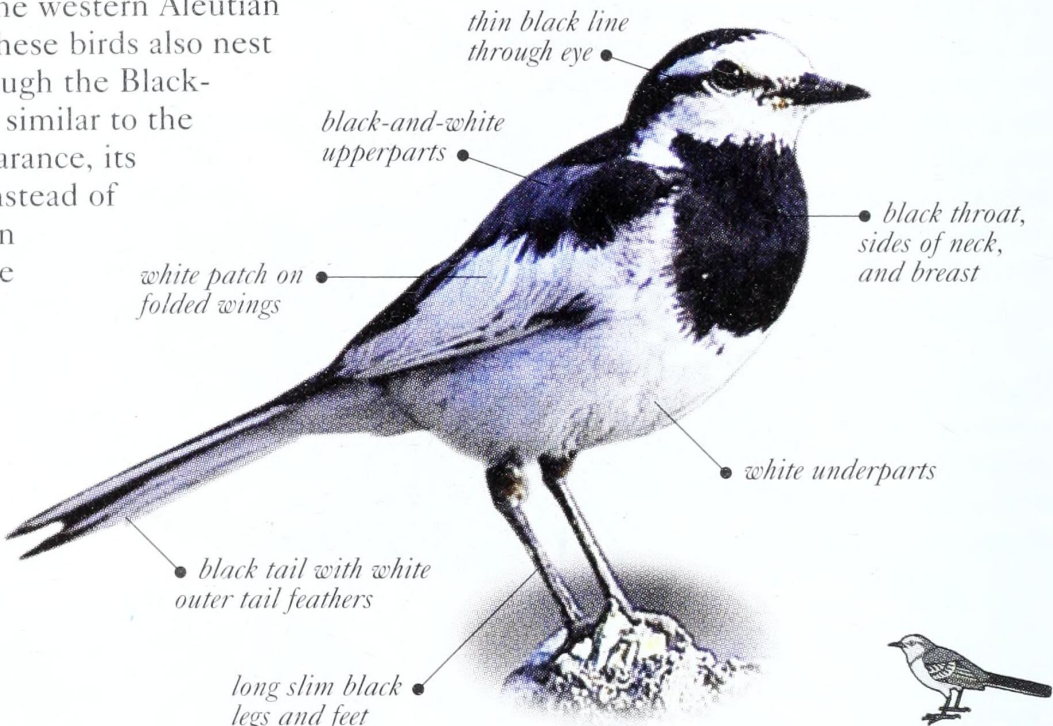
Flight Pattern

Several shallow quick wing strokes, alternated with wings drawn to sides; repeated.

Nest Identification

Shape Location

Grass, forbs, leaves, roots, and twigs, lined with grass, hair, and feathers • in ridges of cliff or hollow in bank; sometimes on ground • built by female • 4–6 grayish or bluish white eggs, with brown speckles; subelliptical, 0.8 x 0.6 inches.

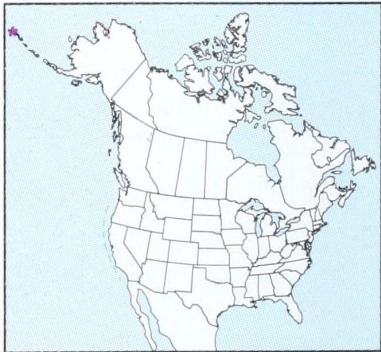


JUVENILE

Similar Birds



WHITE WAGTAIL
Pale gray back; extensively blackish flight feathers of wing, with white secondary coverts producing bar on inner wing • winter adults retain some black on lower cheek, sides of breast; but chin and throat white • juveniles gray above without black; white below with dusky black band on upper chest.



Plumage Sexes similar	Habitat	Migration Migratory	Weight Undetermined
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DATE _____ TIME _____ LOCATION _____

Family MOTACILLIDAE	Species <i>Anthus rubescens</i>	Length 6.5 inches	Wingspan 10–11 inches
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AMERICAN PIPIT

This sparrow-sized bird spends most of its time on the open ground, where it runs and walks, rather than hops. Like many of the pipits, the male has a dramatic song flight in which he flies to a height of 50 to 200 feet then floats down with feet dangling below and tail cocked upward, all the while continuing to sing. The American Pipit's breeding ranges extend from alpine tundra in the high mountains of the western US to arctic tundra across the top of the continent. Winter birds have browner upperparts and they have more heavily streaked underparts.

• **SONG** A repetitive rapid series of notes, *chee-chee-chee* or *cheedal-cheedal-cheedal*. Call sounds like *wit, wit* or *pip-pit* and is most often given in flight.

• **BEHAVIOR** Solitary or in pairs; gregarious after breeding season, forming flocks that may be very large and mixed with other species, including Horned Larks and longspurs. Walks on ground, often bobbing its head

while pumping tail up and down or wagging it. Forages in foliage, grass, and soil. Also wades into shallow waters to pick food from surface. Eats insects and their larvae, seeds, small mollusks, and crustaceans. Alpine species may escape severe weather by moving down mountain slopes to warmer valleys.

• **BREEDING** Monogamous. Solitary nester. Male has courtship song flight.

• **NESTING** Incubation 13–15 days by female. Young altricial; brooded by female; stay in nest 13–15 days, when they can make short flight. Fed by both sexes. 1 brood per year.

• **POPULATION** Common and widespread in tundra and alpine tundra; in winter, in fields and on beaches.

Flight Pattern



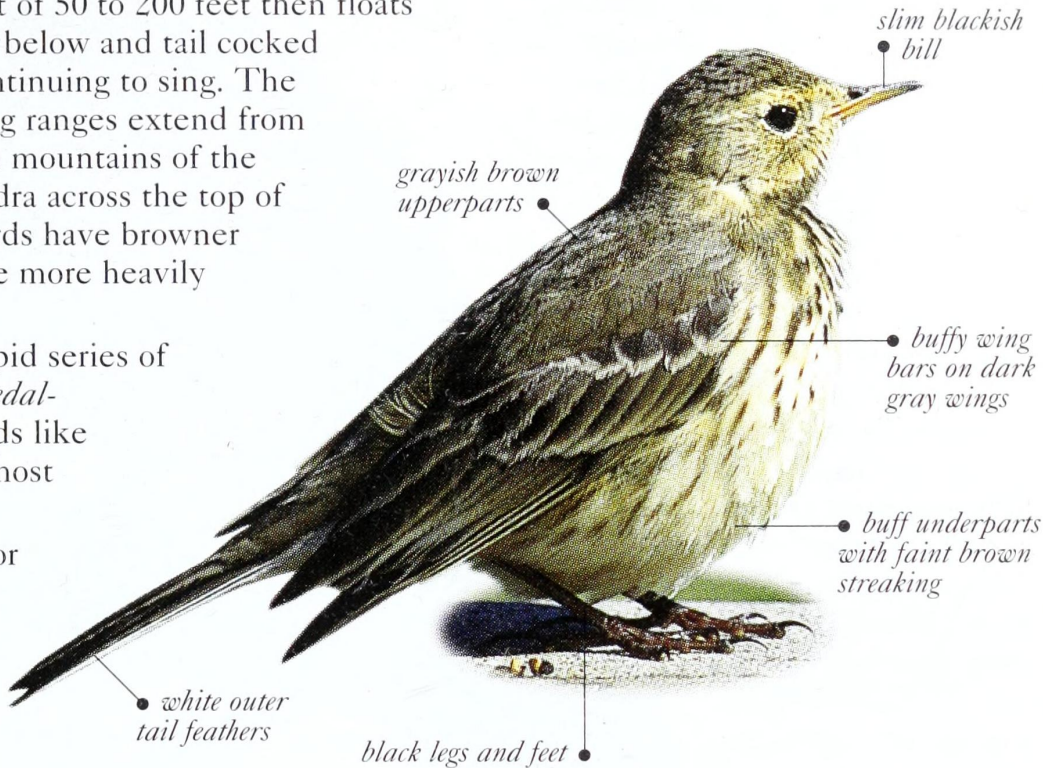
Swift flight on series of rapidly beating wings, alternated with wings pulled to sides; repeated.

Nest Identification

Shape  Location 

• **CONSERVATION** Neotropical migrant. Vulnerable to habitat loss on wintering grounds as well as foraging areas in migration.

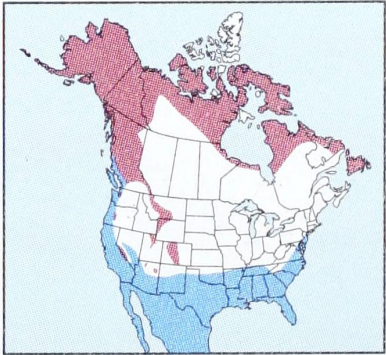
Often no nest materials; sometimes sticks and grass, occasionally with lining of small amount of mammal hair • sheltered by bank, rocks, or hillock • built by female • 3–7 grayish white eggs, with brown splotches; subelliptical, 0.8 x 0.6 inches.



Similar Birds



SPRAGUE'S PIPIT
Buff- and blackish-streaked upperparts; dark eye on pale buff face with pale eye ring; pinkish to yellow legs and feet; slender yellowish bill; white underparts with deeper buff on lightly streaked breast; does not pump tail.



Plumage Sexes similar	Habitat 	Migration Migratory	Weight 0.8 ounce
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DATE _____ TIME _____ LOCATION _____

Family MOTACILLIDAE	Species <i>Anthus spragueii</i>	Length 6.5 inches	Wingspan 10–11 inches
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SPRAGUE'S PIPIT

Because its plumage serves as camouflage in the prairie grasses, this bird is hard to spot. When frightened, it often chooses to run or freeze, rather than fly. Olive-tan upperparts are edged with buff on the coverts, flight feathers, and back, creating a scaly appearance. Dark eyes encircled by thin eye rings stand out in sharp contrast to a buffy face. In flight, white outer feathers are evident on the mostly black tail. Unlike the American Pipit, it does not bob or wag its tail when it walks.

- **SONG** In display flight sings tinkling downward series of clear musical notes, *tzee, tzee-a*. Call is high-pitched *squeet-squeet-squeet*, mostly given in flight.
- **BEHAVIOR** Solitary or in pairs; gregarious after breeding season, forming flocks, often with other species. Secretive. Walks and runs on ground as it forages in tall grasses and grain fields. Eats insects and seeds. When flushed, flies an extended erratic pattern before dropping back into the grasses. Female sits tightly on the nest; she often flies up to meet the male as he descends from his aerial courtship flight.
- **BREEDING** Monogamous. Solitary. Courting male flies in spirals as high as 500 feet, circles and sings, then closes his wings and falls earthward, opening his wings just above ground.
- **NESTING** Incubation unknown but estimated at 12–14 days by female. Altricial young brooded by female; stay in nest 10–11 days, fed by female. 1–2 broods per year.
- **POPULATION** Uncommon in short-grass prairies and grassy agricultural fields. Rare in fall and winter in California; accidental in East.

dark eyes

buff- and black-streaked upperparts

thin pale bill

pale buff face

whitish to buff underparts with dark streaking

white outer tail feathers

yellowish to creamy pink feet and legs

Similar Birds

AMERICAN PIPIT
Darker and grayer back without stripes; deeper buff breast; brown to black legs and feet; dark bill; buffy wing bars; dark grayish face; bobs and wags tail continuously.

VESPER SPARROW
Stockier; short conical bill; less extensive white on outer tail feathers; white-bordered dark ear patch; chestnut patch in bend of wing.

Flight Pattern

Swift flight on series of rapidly beating wing strokes, alternated with wings pulled in to body; repeated.

Nest Identification

Shape	Location
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Grasses • on ground, sometimes on grassy tussock • built by female • 4–6 pale buff or grayish white eggs, splotched with browns or gray, often with fine dark brown lines at larger end; subelliptical, 0.8 x 0.6 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.9 ounce
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DATE _____ TIME _____ LOCATION _____

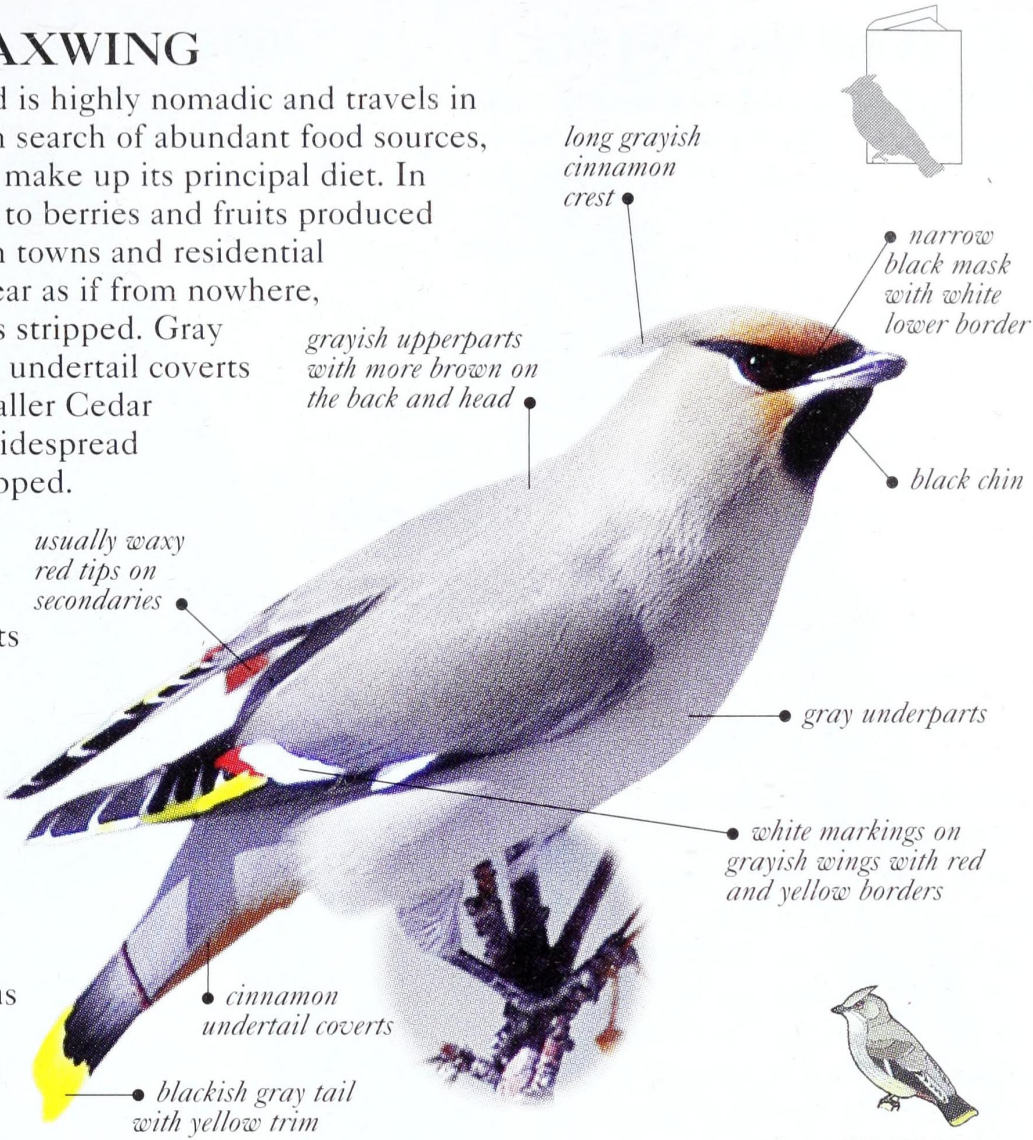
Family BOMBYCILLIDAE	Species <i>Bombycilla garrulus</i>	Length 8.25 inches	Wingspan 13–14 inches
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BOHEMIAN WAXWING

True to its name, this bird is highly nomadic and travels in flocks over a wide range in search of abundant food sources, particularly berries, which make up its principal diet. In winter it often is attracted to berries and fruits produced by ornamental plantings in towns and residential areas, and flocks may appear as if from nowhere, lingering until the larder is stripped. Gray underparts with cinnamon undertail coverts distinguish it from the smaller Cedar Waxwing. Like its more widespread relative its tail is yellow tipped.

In flight it shows a white patch at the base of the primaries. Juveniles have heavily streaked underparts and whitish throats.

- **SONG** While flying, utters continuous twittering and chatter. Call is an abrasive scree or zirrrr.
- **BEHAVIOR** In pairs or small groups during breeding season; gregarious rest of year, forming flocks. Usually feeds close to other birds on ground and in trees. Perches to spot insects, then hawks them in flight. Eats fruit, berries, and insects. Drinks sap. Very tame. Southward eruptions are unpredictable and varied, often tied to crashes in food sources in breeding range.
- **BREEDING** Monogamous. Colonial.
- **NESTING** Incubation 14–15 days by female. Young altricial; brooded by female; stay in nest 13–18 days, fed by both sexes. 1 brood per year.
- **POPULATION** Fairly common to uncommon in mixed conifer and open coniferous woodlands and muskeg; widespread in range in winter.

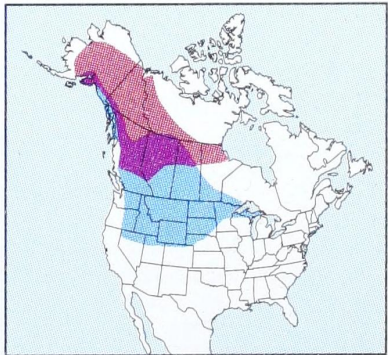


JUVENILE

Similar Birds



CEDAR WAXWING
Smaller; browner upperparts; yellow on belly; white undertail coverts; lacks yellow and white bars and spots on wings.



Flight Pattern



Strong rapid flight with a series of rapid wing beats alternating with wings pulled briefly to sides. Hawks for insects.

Nest Identification

Shape 

Location 

Sticks, lichen, stems, and grass; lined with mosses and fine materials • far out on horizontal limb, 4–50 feet above ground • built by both sexes • 2–6 pale bluish gray eggs, splotched and marked with black, especially at larger end; oval, 1.0 x 0.7 inches.

Plumage Sexes similar	Habitat 	Migration Migratory	Weight 2.0 ounces
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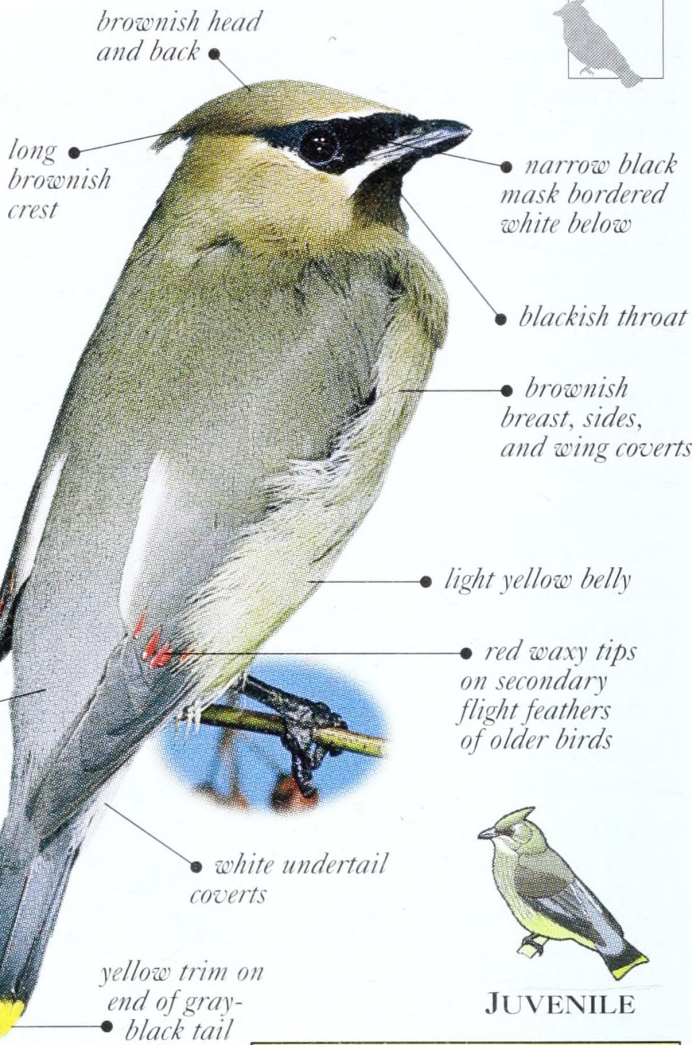
DATE _____ TIME _____ LOCATION _____

Family BOMBYCILLIDAE	Species <i>Bombycilla cedrorum</i>	Length 7 inches	Wingspan 11–12.25 inches
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CEDAR WAXWING

Named for the red waxlike tips on its secondaries, this social bird travels in large flocks in the nonbreeding season and may even nest in loose colonies. The purpose of the “red wax” is long-debated, but younger birds do not have it and the older birds that do often choose each other as mates and produce more young than the younger pairs. At times this bird may become so intoxicated on overripe fruit that it cannot fly. Females are similar to males but show a brownish rather than a blackish throat (a difficult field mark that can be observed only at close hand). Juveniles have streaked upperparts and underparts.

- **SONG** Call is thin, high-pitched warbled *zeeee* or *zeeeet*, more protracted just before leaving perch; may call constantly in flight.
- **BEHAVIOR** In pairs or in small to large flocks. Gregarious, especially in migration and winter. Tame and sociable. Feeds close to other birds in trees or on ground. Eats fruit, flower petals, and insects; drinks sap. Several may sit on a wire or branch and pass a piece of fruit back and forth, beak to beak. Hawks insects, particularly mayfly hatches and those of similar species, especially along streams.
- **BREEDING** Monogamous. Solitary to colonial. During courtship, male and female will sit together and pass flower petals back and forth, share food, and rub bills.
- **NESTING** Incubation 12–16 days by both sexes. Young altricial; brooded by female; stay in nest 14–18 days, fed by both sexes. 1–2 broods per year.
- **POPULATION** Fairly common to uncommon in woodland, forest edge, farmlands with fruit trees, towns, and suburbs.



JUVENILE

Similar Birds



BOHEMIAN WAXWING
Larger; grayer; cinnamon undertail coverts; white and yellow spots and bars on wings; white bar at base of primaries on folded wing shows as white patch in flight.

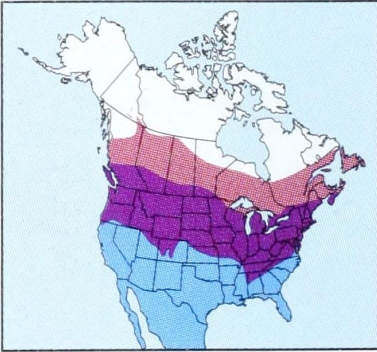
Flight Pattern

Strong rapid flight with several quick wing strokes alternating with brief periods of wings pulled to sides; repeated.

Nest Identification

Shape Location

- **FEEDERS** Raisins and berries; attracted to birdbaths.
- **CONSERVATION** Neotropical migrant. Not a common cowbird host; often rejects or damages its eggs.



Sticks, mosses, and grass, lined with fine grass, moss, rootlets, hair, and pine needles • on limb or in fork of conifer or deciduous tree, 6–60 feet above ground • built by both sexes • 2–6 pale bluish gray eggs, dotted with black and brown; oval, 0.8 x 0.6 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.1 ounces
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DATE _____ TIME _____ LOCATION _____

Family PTILOGONATIDAE	Species <i>Ptilogonys cinereus</i>	Length 7.2–8.2 inches	Wingspan 11–12 inches
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GRAY SILKY-FLYCATCHER

This bird catches insects like a flycatcher but is more similar to a waxwing in appearance and in habits, mixing its insect diet with fruits and berries, especially mistletoe. An endemic of the highland forests of Mexico and southwestern Guatemala, strays have been spotted in Texas. This silky-plumaged bird has a small broad bill, slender crest, and long tail. In flight females show grayish uppertail coverts.

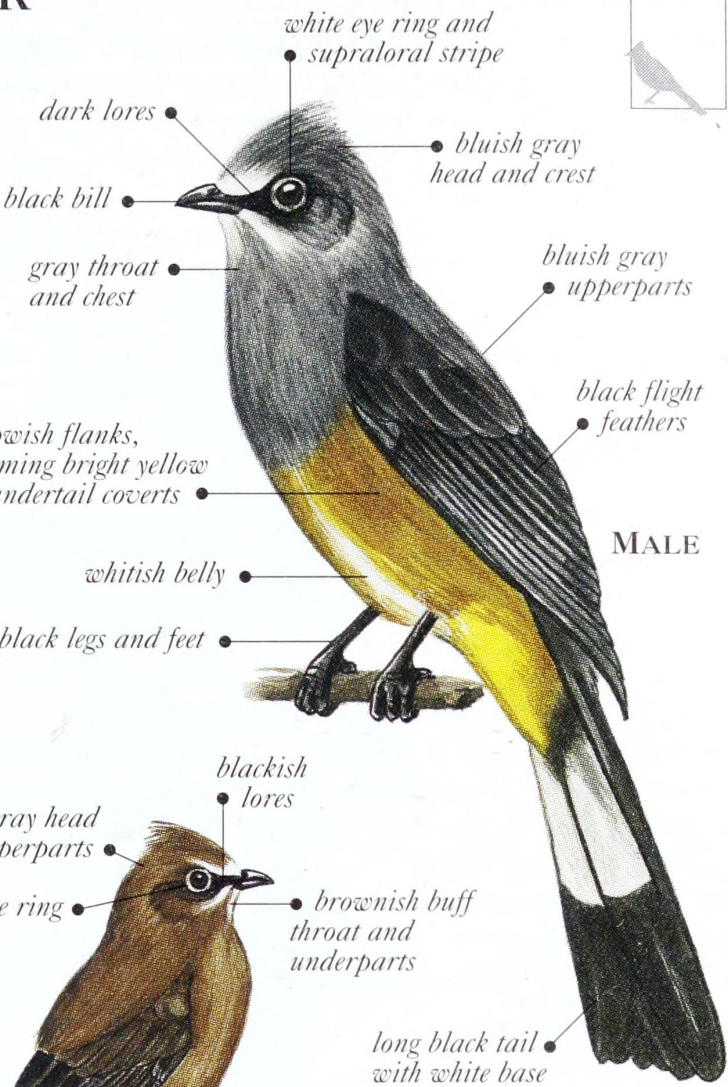
• **SONG** Warbled twitters and whistles, some nasal, some pleasant. Call is abrasive *chureet* or *chuleep*.

• **BEHAVIOR** In pairs or flocks, which can be large. Perches high in treetops. Feeds in upper and middle levels in trees and on ground. Catches insects in flight, similar to the hawking of a flycatcher. Eats fruits and insects. Often flies high in the air. Foraging is often social in loose flocks. Wanders after breeding season to lower regions, sometimes well beyond breeding range, especially in winter.

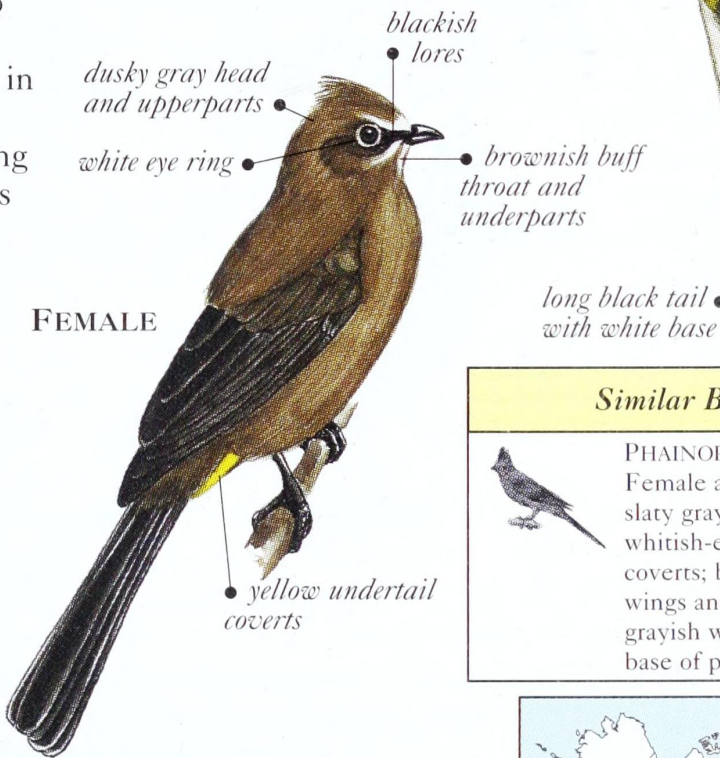
• **BREEDING** Monogamous. Solitary or loose colonial.

• **NESTING** Incubation 12–14 days by both sexes. Young altricial; brooded by female; stay in nest 18–20 days, fed by both sexes. 2 broods per year.

• **POPULATION** Accidental in North America in southern Texas. Common to fairly common in Mexico.



MALE

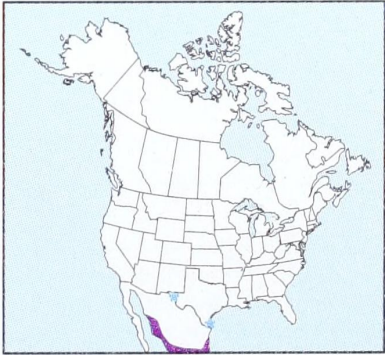


FEMALE

Similar Birds



PHAIÑOPEPLA ♀
Female and juvenile are slaty gray overall; whitish-edged undertail coverts; blackish gray wings and long tail; pale grayish white patch at base of primaries.



Flight Pattern



Swift flight with rapid wing strokes alternating with brief periods of wings pulled to sides. Sallies from perch to take insects, returning to perch.

• **CONSERVATION**
Vulnerable to loss of pine-oak and evergreen highland forests, which are required as breeding habitat, as a result of logging operations and land clearing.

Nest Identification

Shape  Location 

Twigs, grasses, and lichen, lined with finer materials • saddled in tree or shrub • built mostly by male with some help from female • 2 bluish white eggs, with dark brown and gray markings; oval, 0.8 x 0.6 inches.

Plumage Sexes differ	Habitat 	Migration Migratory	Weight 1.2 ounces
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DATE _____ TIME _____ LOCATION _____

Family	PTILOGONATIDAE	Species	<i>Phainopepla nitens</i>	Length	7.75 inches	Wingspan	11.5 inches
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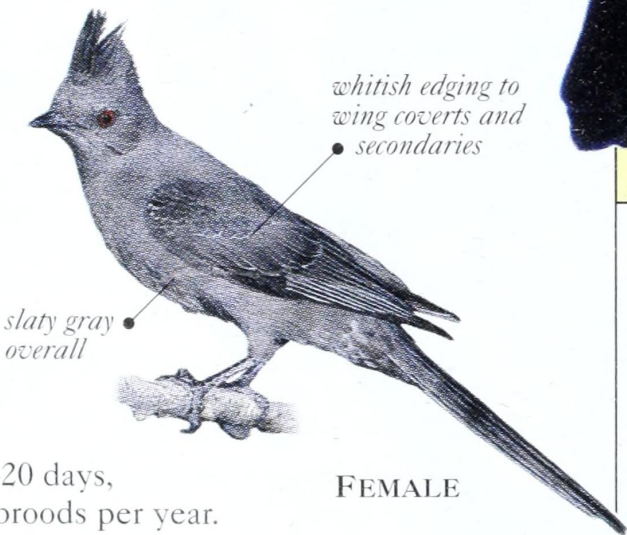
PHAINOPEPLA

This may be the only North American bird that nests in two different regions during the same breeding season. The early nest of the breeding season is usually in the desert. Then, as the desert warms with the season, the Phainopepla moves to a higher, more moist habitat and nests again. These highly nomadic birds survive by following the crops of mistletoe and other berries. The glossy black-crested males flash a white wing patch at the base of the primaries in flight; the slate-gray juveniles and females show a pale gray one.

- **SONG** Sings a short trilling somewhat liquid whistle of *tlee-oo-eee*, which is not often heard. Has mellow call of *whew* or *werp*?
- **BEHAVIOR** Solitary or in pairs or loose groups. Forages for food in trees, bushes, and, rarely, on ground. Catches insects in flight, similar to flycatcher. Eats mistletoe and various other berries; defends food trees and shrubs from other birds. Also eats spiders and flower petals. May hover over food and pick it up. Male has courtship display in which he flies 300 feet or so and zigzags or circles above his territory; sometimes other males join in above their own territories. Sometimes wanders beyond breeding range after nesting season.
- **BREEDING** Monogamous. Solitary or in small colonies.
- **NESTING** Incubation 14 days by both sexes. Young altricial; brooded by female; stay in nest 19–20 days, fed by both sexes. 1–2 broods per year.
- **POPULATION** Fairly common to common in desert scrub, mesquite brushland, and semiarid and riparian woodland and oak foothills. Accidental in the East.



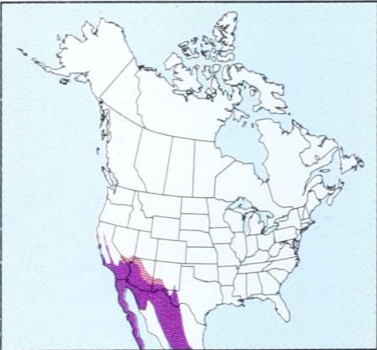
MALE



Similar Birds



GRAY SILKY-FLY-CATCHER ♀
Female and juvenile
• grayish head and breast; dusky gray upperparts; blackish gray wings and tail; gray uppertail coverts; dull gray-brown throat and underparts; whitish belly; yellowish undertail coverts.



Flight Pattern

Direct flight is high and fluttery, with shallow jerky wing strokes; sallies from perch to snatch insects in midair; returns.

Nest Identification

Shape

Location

• **CONSERVATION**
Vulnerable to habitat loss due to development and agriculture, also cutting of mesquite for charcoal in Mexico.

Sticks and plant down, bound with spider silk and lined with down and hair
• in fork of tree or bush, often shaded by foliage, 4–50 feet above ground
• mostly built by male, who may build several nests • 2–4 grayish eggs, dotted and splotched with browns and black; oval, 0.8 x 0.6 inches.

Plumage	Sexes differ	Habitat		Migration	Northern birds migrate	Weight	0.8 ounce
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DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Vermivora pinus</i>	Length 4.75 inches	Wingspan 6.75–7.5 inches
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BLUE-WINGED WARBLER

Except when the male perches high to sing, this unobtrusive, deliberate bird usually forages low, amid brushy overgrown fields and thickets. It often interbreeds with the Golden-winged Warbler, producing the fertile hybrids known as Lawrence's Warbler and Brewster's Warbler. The female is similar to the male but duller in color and has less yellow on her crown. When its range overlaps that of the Golden-winged Warbler, it tends to displace it.

- **SONG** Sings a breathy descending *beeee-buzzzzz*. A dry *buzz* followed by a lower *buzz* is the typical song. The alternate song sounds similar to that of the Golden-winged Warbler's *beee-buzzz*, *buzzz*, *buzzz*. Call note is a sharp *tisk*.
- **BEHAVIOR** Solitary or in pairs. Somewhat tame, but also somewhat inconspicuous. Feeds low in trees and close to ground, often hanging upside down in the manner of a chickadee. Often probes into curled dead leaves with long bill. Eats insects and spiders. Sometimes hover glean. More generalized in habitat requirements than Golden-winged Warbler, it lives in a wide variety of early successional stages from old fields to young clear-cuts to power line right-of-ways.
- **BREEDING** Monogamous. Solitary or small loose colonies.
- **NESTING** Incubation 10–12 days by female. Young altricial; brooded by female; stay in nest 8–11 days, fed by both sexes. 1–2 broods per year.
- **POPULATION** Uncommon to fairly common in second growth and early successional habitat. Expanding in northern and northeastern portions of range. Casual in West on migration.



Similar Birds

YELLOW WARBLER ♀
Female and juvenile
• yellow wing bars, tail spots, and undertail coverts; lacks bluish wings, black eye stripe.

PROTHONOTARY WARBLER ♂
Golden yellow head, neck, and underparts; white undertail coverts; blue-gray wings and tail; large white tail patches; olive green back; long black bill; no wing bars or eyeline.

♀

BREWSTER'S WARBLER
Blue-winged/Golden-winged hybrid • yellow or whitish underparts tinged with yellow; whitish to yellowish wing bars.

Flight Pattern

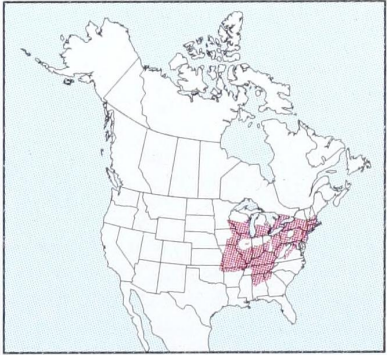
Weak fluttering flight with wings briefly pulled to sides; repeated. Sometimes hovers to glean insects from foliage or branches.

Nest Identification

Shape

Location

• **CONSERVATION** Neotropical migrant. Host to cowbird parasitism. Decreasing in the Midwest due to habitat lost to agriculture.



Grasses, dried leaves, and bits of bark, with lining of fine grasses, vines, and hair
• on ground, usually in vines or grasses and sheltered by shrub • built by female, perhaps aided by male • 4–7 white eggs, with flecks of brown and gray; oval to short oval, 0.6 x 0.49 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.3 ounce
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DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Vermivora chrysoptera</i>	Length 4.75–5 inches	Wingspan 7.75–8.25 inches
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GOLDEN-WINGED WARBLER

This bird feeds chickadee-style, often hanging upside down, to find its favorite food, leaf-eating caterpillars. Its combination of a yellow wing patch and a black throat sets it apart from other similar warblers. The female is similar to the male but is duller in color, and her throat and eye patch are gray. The Golden-winged Warbler hybridizes with the Blue-winged Warbler, producing two hybrid forms known as Brewster's Warbler and the very rare Lawrence's Warbler. The hybrids generally cross back with the parent species.

- **SONG** Primary song is an insectlike *bee-buz-buz-buz*; gives second song of *bee-buzzzz*, similar to that of Blue-winged Warbler.
- **BEHAVIOR** Solitary or in pairs. Energetic feeder. Inspects all sides of branches and foliage. Eats mainly caterpillars and spiders. Commonly probes leaves for larvae. Forages in dead leaves in fall and winter. A habitat specialist, using early successional stages of old fields and woodland borders.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 10 days by female. Young altricial; brooded by female; stay in nest 9–10 days, fed by both sexes. 1 brood per year.
- **POPULATION** Uncommon to rare. Numbers are declining.
- **CONSERVATION** Neotropical migrant. Declining with loss of habitat primarily due to later stages of succession and to competition with increasing Blue-winged Warbler, which displaces it when ranges are sympatric. Vulnerable to nest parasitism by Brown-headed Cowbird.



Flight Pattern

Weak fluttering flight with rapid wing beats, alternating with brief periods of wings drawn to sides; repeated.

Nest Identification

Shape Location

Map of North America showing the range of the Golden-winged Warbler in the eastern United States and southeastern Canada.

Bark pieces and grass, lined with hair and a few bark chips • on ground at base of shrub or tree or hidden in tall grass; sometimes set on pile of stems • built by female • 4–7 white or cream-white eggs, with brown splotches and dots; oval to short oval; 0.7 x 0.5 inches.

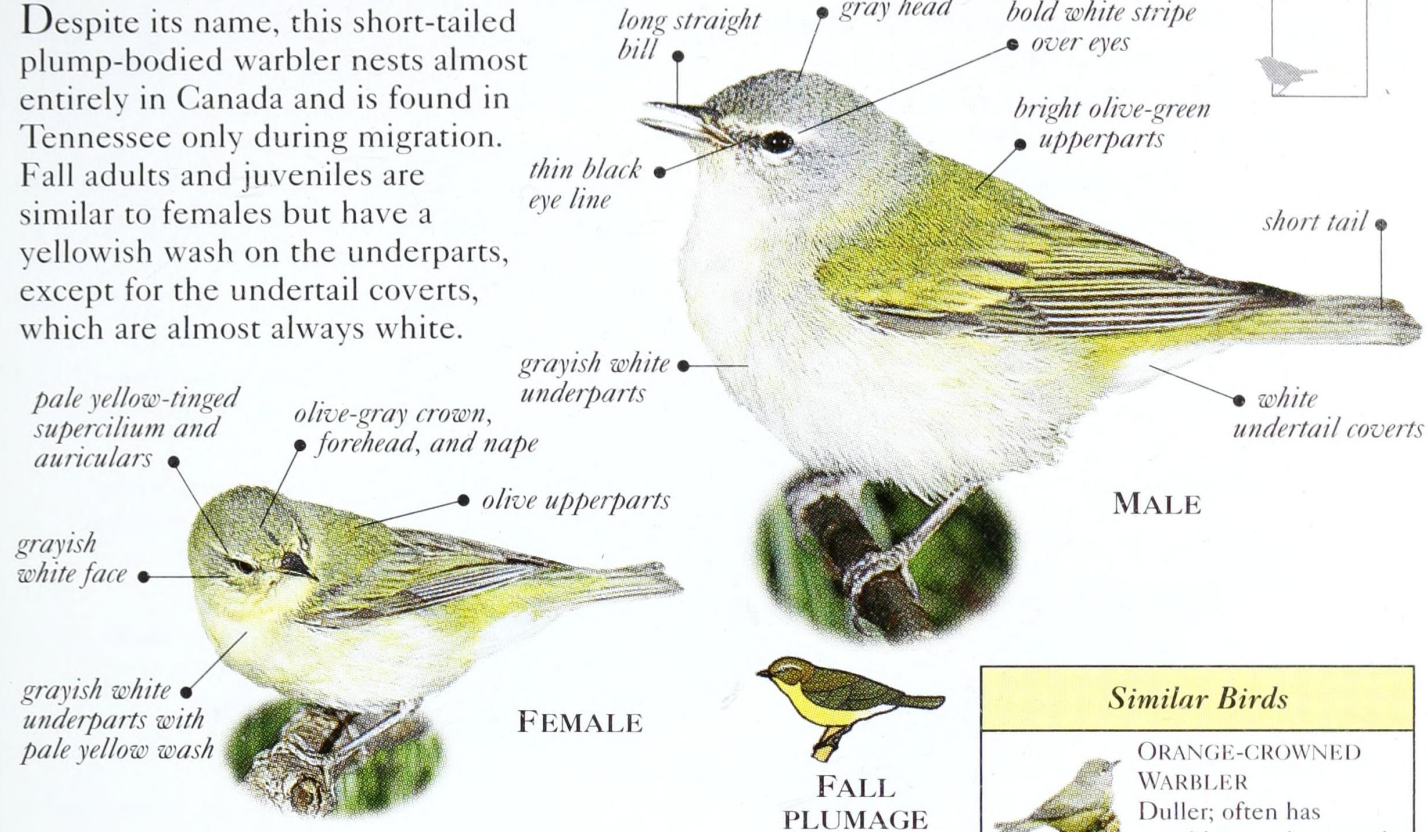
Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.3 ounce
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DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Vermivora peregrina</i>	Length 4.75 inches	Wingspan 7.5–8 inches
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TENNESSEE WARBLER

Despite its name, this short-tailed plump-bodied warbler nests almost entirely in Canada and is found in Tennessee only during migration. Fall adults and juveniles are similar to females but have a yellowish wash on the underparts, except for the undertail coverts, which are almost always white.



- **SONG** Male sings often with a loud staccato 3-part song of *ticka-ticka-ticka-ticka*, *chip-chip-chip*, *sit-sit-sit-sit-sit-sita-sita-sita*; third part is faster and has a dry clattering similar to the twitter of Chimney Swift. Call is sharp *tsit*.
- **BEHAVIOR** Solitary when nesting; postbreeding birds form small groups, often in mixed-species flocks. Active, nervous. Creeps along branches, foraging at all levels. Eats mostly insects (especially spruce budworm), flower nectar, fruit, and some seeds. More active than similar vireos.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 11–12 days by female. Altricial young brooded by female; stay in nest 9–11 days, fed by both sexes. 1 brood per year.
- **POPULATION** Fairly common; rising in coniferous and mixed deciduous-coniferous woodlands. Uncommon in West in fall. Rare in winter in California.

Similar Birds

ORANGE-CROWNED WARBLER
Duller; often has streaking on throat and chest; less distinct face pattern; yellow or greenish yellow undertail coverts.

WARBLING VIREO
Larger; heavier hooked bill; slower actions; duller and paler upperparts; indistinct pale arc beneath eye.

PHILADELPHIA VIREO
Larger; indistinct pale arc below eye; heavier hooked bill; sluggish actions; duller, paler upperparts; yellowish undertail coverts.

Flight Pattern

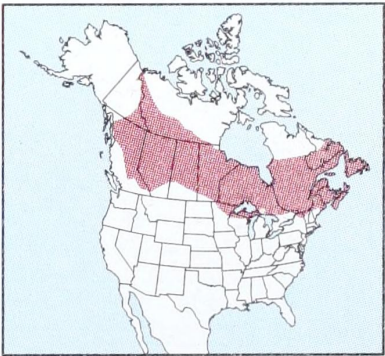
Weak, somewhat fluttering flight with brief periods of wings pulled to sides; repeated.

Nest Identification

Shape

Location

- **FEEDERS** Mixture of suet, peanut butter, and ripe banana.
- **CONSERVATION** Neotropical migrant. Rare cowbird host. Vulnerable to habitat loss.



Dried grasses and moss, with lining of fine grasses, stems, and hair • above bog in moss, on ground, or in base of shrub • built by female • 4–7 white or creamy white eggs, with brown splotches; ovate to short ovate, subelliptical to short subelliptical, 0.62 x 0.48 inches.

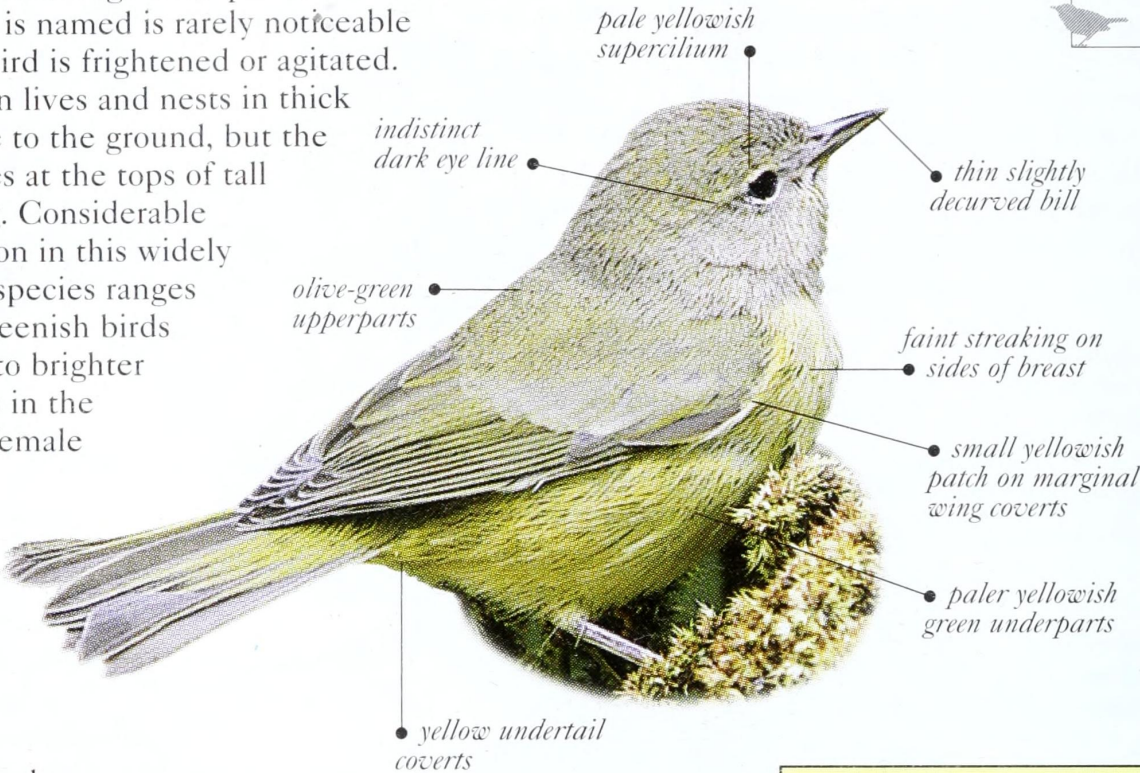
Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.4 ounce
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DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Vermivora celata</i>	Length 4.75–5 inches	Wingspan 7–8 inches
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ORANGE-CROWNED WARBLER

The brownish orange head patch for which this warbler is named is rarely noticeable unless the bird is frightened or agitated. It most often lives and nests in thick foliage close to the ground, but the male perches at the tops of tall trees to sing. Considerable color variation in this widely distributed species ranges from dull greenish birds in the East to brighter yellow birds in the West. The female



sometimes lacks the crown patch. Juveniles are similar to adults but may show indistinct wing bars.

- **SONG** Male sings a high-pitched abrupt trill, which changes pitch toward the end, often slowing and dropping, *chip-ee, chip-ee, chip-ee*. Call note is a rough *stic*.
- **BEHAVIOR** Solitary. Vocal. Slow deliberate actions. Forages for food along branches and in foliage low in trees, shrubs, and grasses. Probes curled dead leaves. Eats mainly insects, flower nectar, and some fruits. Feeds from sapsucker drill wells. Hardy species, wintering farther north than most other warblers. Inquisitive; will respond to pishing and squeaking by birders.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 12–14 days by female. Young altricial; brooded by female; stay in nest 8–10 days, fed by both sexes. 1 brood per year.

Flight Pattern

Somewhat weak flight with series of wing beats followed by brief period of wings pulled to sides.

Nest Identification

Shape Location

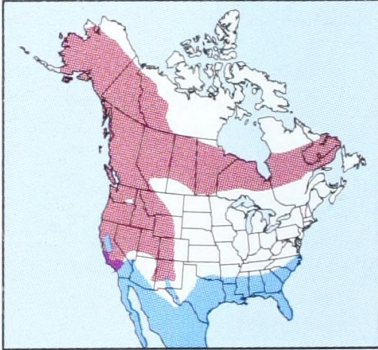
- **POPULATION** Common in the West; rarer in the East.
- **FEEDERS** Mixture of peanut butter and suet. Also eats doughnuts.
- **CONSERVATION** Neotropical migrant. Rare cowbird host.

Similar Birds

YELLOW WARBLER ♀
Female and juvenile
• pale edging to tertials, flight feathers, and wing coverts; yellow tail spots; dark eye on pale face.

NASHVILLE WARBLER
Clear yellow underparts with no streaking; clear white eye ring; shorter tail.

TENNESSEE WARBLER
Fall plumage • greener upperparts; shorter tail; unstreaked underparts; white undertail coverts.



Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.3 ounce
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Family PARULIDAE

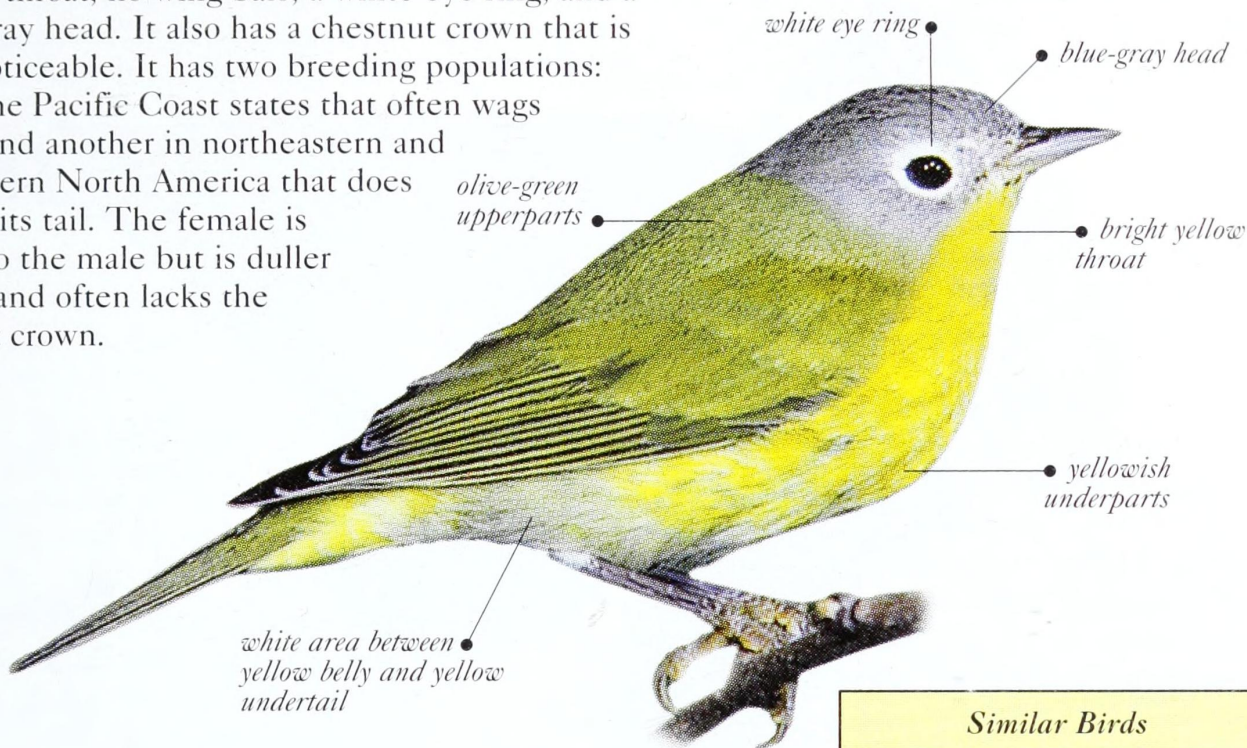
Species *Vermivora ruficapilla*

Length 4.75 inches

Wingspan 7.25–7.75 inches

NASHVILLE WARBLER

First collected while migrating near Nashville, Tennessee, this is the only North American warbler with a yellow throat, no wing bars, a white eye ring, and a bluish gray head. It also has a chestnut crown that is rarely noticeable. It has two breeding populations: one in the Pacific Coast states that often wags its tail, and another in northeastern and midwestern North America that does not wag its tail. The female is similar to the male but is duller in color and often lacks the chestnut crown.



- **SONG** High-pitched and loud, in 2 parts, *see-bit, see-bit, see-bit, tititititit* in the eastern birds, similar to that of the Tennessee Warbler. Western bird's songs begin the same way, but the second part is more musical, richer, and generally without the trill at the end. Call note is a sharp *pink*.
- **BEHAVIOR** Solitary. Frequent singer on territory. Sometimes gives song in flight. Sings from high exposed perch. Forages low in trees and in undergrowth for food, but often at the tips of branches or stems. Eats mostly insects.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 11–12 days by both sexes; female does more. Young altricial; brooded by female; stay in nest 11 days, fed by both sexes but mostly by female. 1 brood per year.
- **POPULATION** Common to fairly common in riparian woodlands and bogs, deciduous or coniferous woodlands, and thickets.

Similar Birds



VIRGINIA'S WARBLER
Grayer overall, including gray-green back and rump; yellow underparts restricted to chest and undertail coverts; white eye ring; shorter tail.



CONNECTICUT WARBLER
Larger; gray head; grayish throat; white eye ring; pink legs and feet; yellow underparts, including belly; sluggish behavior walking on limbs and on ground.



Flight Pattern



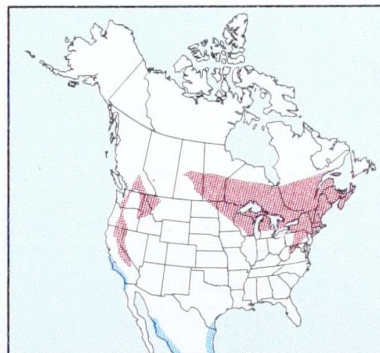
Rather weak flight with series of rapid wing strokes alternating with brief periods of wings pulled to sides.

Nest Identification

Shape

Location

Plant stems, pine needles, mosses, and rabbit fur, with lining of finer materials
• on ground, sheltered by shrub or small tree, or sometimes placed on grassy or mossy tussock • built by female • 4–5 white or cream-white eggs, with fine dots of brown; ovate to short ovate, 0.6 x 0.47 inches.



Plumage Sexes similar

Habitat

Migration Migratory

Weight 0.3 ounce

DATE _____ TIME _____ LOCATION _____

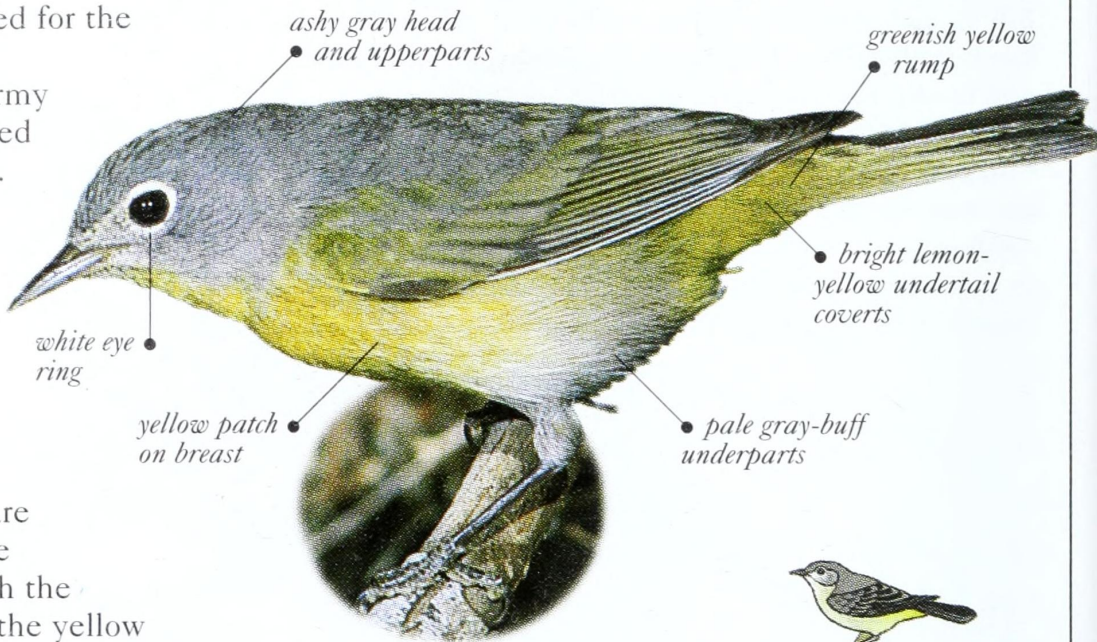
Family PARULIDAE	Species <i>Vermivora virginiae</i>	Length 4.5–4.75 inches	Wingspan 7.25–7.75 inches
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VIRGINIA'S WARBLER

This bird most often builds its nest in arid coniferous forests in mountains and chaparral between six thousand and nine thousand feet. It is named for the wife of Dr. William W.

Anderson, an assistant army surgeon who first recorded the bird in New Mexico. It is closely related and very similar to the Nashville Warbler, although their ranges do not overlap. This shy and active warbler almost constantly bobs its tail up and down. Females are similar to males but have duller coloring, with both the rufous crown patch and the yellow breast patch being much reduced.

- **SONG** Sings a 2-part song of slurred notes, with first 2-syllabled part of *chee-wee, chee-wee, chee-wee, cheah, cheah, chee*. Call is a sharp abrasive *chink*.
- **BEHAVIOR** Solitary or in pairs. Rather shy and retiring. May join mixed-species foraging flocks after nesting season. Male often sings from high exposed perch. Forages in low trees, shrubs, and sometimes on ground. Eats mostly insects and their caterpillars. Gleans prey from branches and foliage and sometimes hover gleans. Catches some insects in flight.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Breeding biology poorly known. Estimated incubation 11–12 days by both sexes, but mostly by female. Young altricial; brooded by female; stay in nest estimated 11 days, fed by both sexes. 2 broods per year.
- **POPULATION** Common in mountain brushlands with adjacent pines or oaks. Rare migrant and wintering bird to coastal



JUVENILE

Similar Birds



LUCY'S WARBLER
Shorter tail; white underparts with white undertail coverts • male is smaller and has chestnut crown and rump • female and juvenile have cinnamon rumps.



COLIMA WARBLER
Larger; more brown on upperparts and flanks; brighter yellow rump; yellow undertail coverts.

California. Casual in the East during migration.

- **CONSERVATION** Neotropical migrant. Rare to uncommon host to cowbird parasitism. Some range expansion in California since the 1960s.

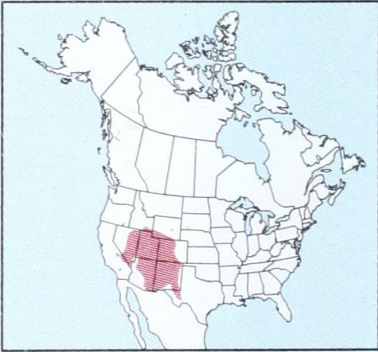
Flight Pattern

Somewhat weak fluttering direct flight on rapidly beating wings.

Nest Identification

Shape Location

Bark pieces, grasses, moss, lichens, and stems, with lining of same materials and hair • on ground, near grassy tussock or base of tree, or hidden in pile of leaves • built by female • 3–5 white eggs, flecked with brown; oval to short oval, 0.6 x 0.5 inches.



Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.3 ounce
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DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Vermivora crissalis</i>	Length 5.5 inches	Wingspan 8.5 inches
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COLIMA WARBLER

This large warbler is a native of Mexico but has a breeding range in southwestern Texas and makes its summer home in the high mountain canyon oak forests of the Chisos Mountains in Big Bend National Park. This trusting bird is similar to Virginia's Warbler but is larger, longer tailed, has browner upperparts and underparts, and rarely bobs its tail. The female is similar to the male, and juveniles are similar to adults but have buffy wing bars, pale yellow uppertail coverts, and little or no rufous on the crown.

• **SONG** A high-pitched warbling staccato trill, with slight changes in pitch within each song, similar to that of the Orange-crowned Warbler. Has a sharp loud call of *plisst*. Males sing often throughout the day.

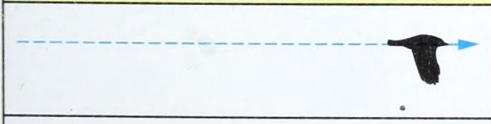
• **BEHAVIOR** Solitary or in pairs. Somewhat tame, allowing fairly close approach. Responsive to pishing by birders. Forages for food in trees, gleaning from branches, twigs, foliage, and flowers. Eats insects and their larvae. Occasionally catches insects in flight. Frequents moist mountain canyons above 6,000 feet with woodland overstory of oaks, juniper, piñon pines, and madrone.

• **BREEDING** Monogamous. Solitary nester.

• **NESTING** Breeding biology poorly known; virtually unstudied in the field. Estimated incubation is 10–12 days by both sexes. Young altricial; brooded by female; stay in nest estimated 11 days, fed by both sexes. 1 brood per year.

• **POPULATION** Common in limited US range and habitat in Chisos Mountains of Texas. Accidental in southeast Texas.

Flight Pattern



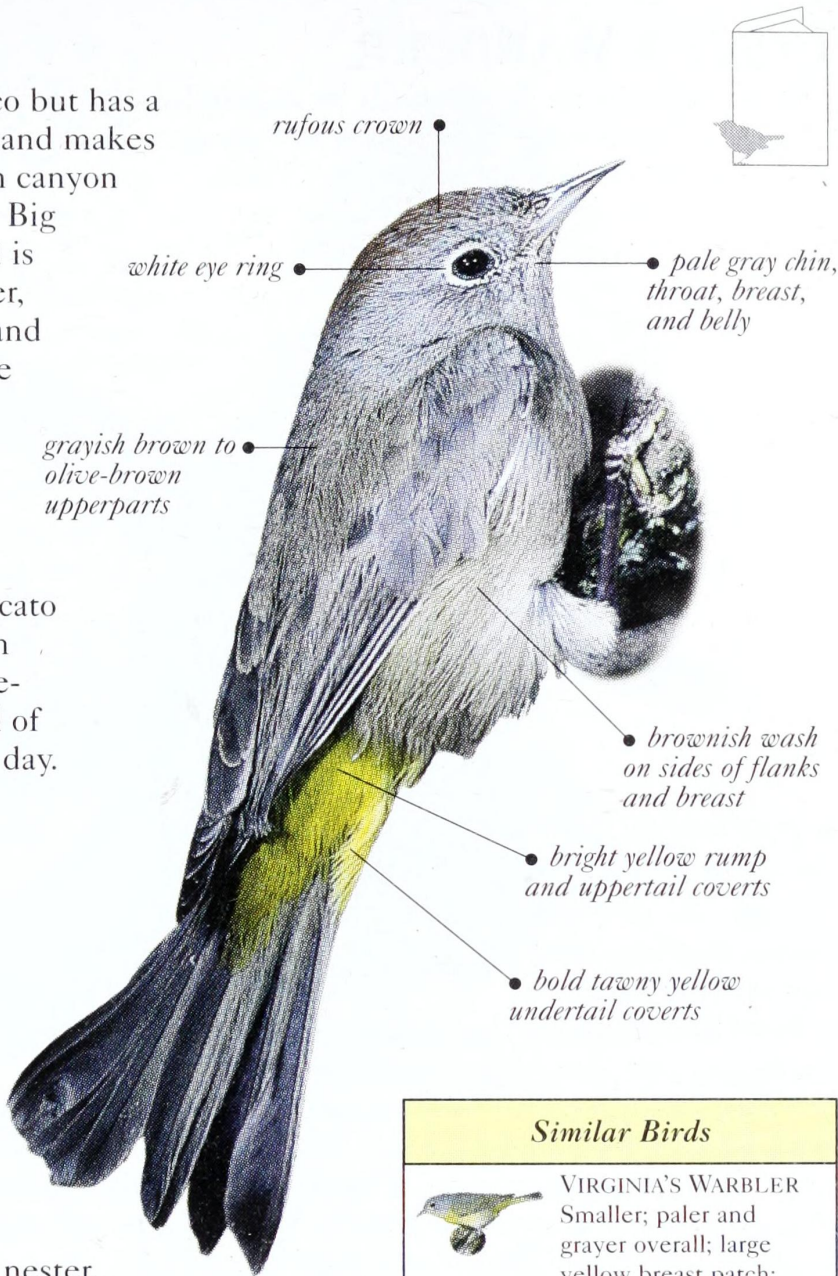
Somewhat weak fluttering direct flight on rapidly beating wings.

Nest Identification

Shape  Location 

• **CONSERVATION** Neotropical migrant and habitat specialist. Vulnerable to habitat loss due to fire. Also vulnerable to habitat loss in Mexico from overgrazing and logging. US range is fully protected. Extent of cowbird parasitism unknown.

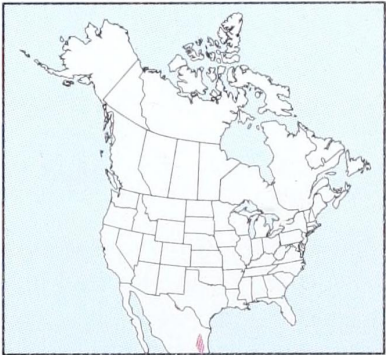
Dry leaves, dry grasses, pieces of bark, and moss, with lining of fur and hair • on ground, sheltered by grassy tussock, rocks, or stream bank • built by both sexes • 4 creamy white eggs, with brown wreath at larger end; oval, 0.72 x 0.53 inches.



Similar Birds



VIRGINIA'S WARBLER
Smaller; paler and grayer overall; large yellow breast patch; clear lemon-yellow undertail coverts; smaller rufous crown patch; lacks brown tones on upperparts, breast, and flanks.



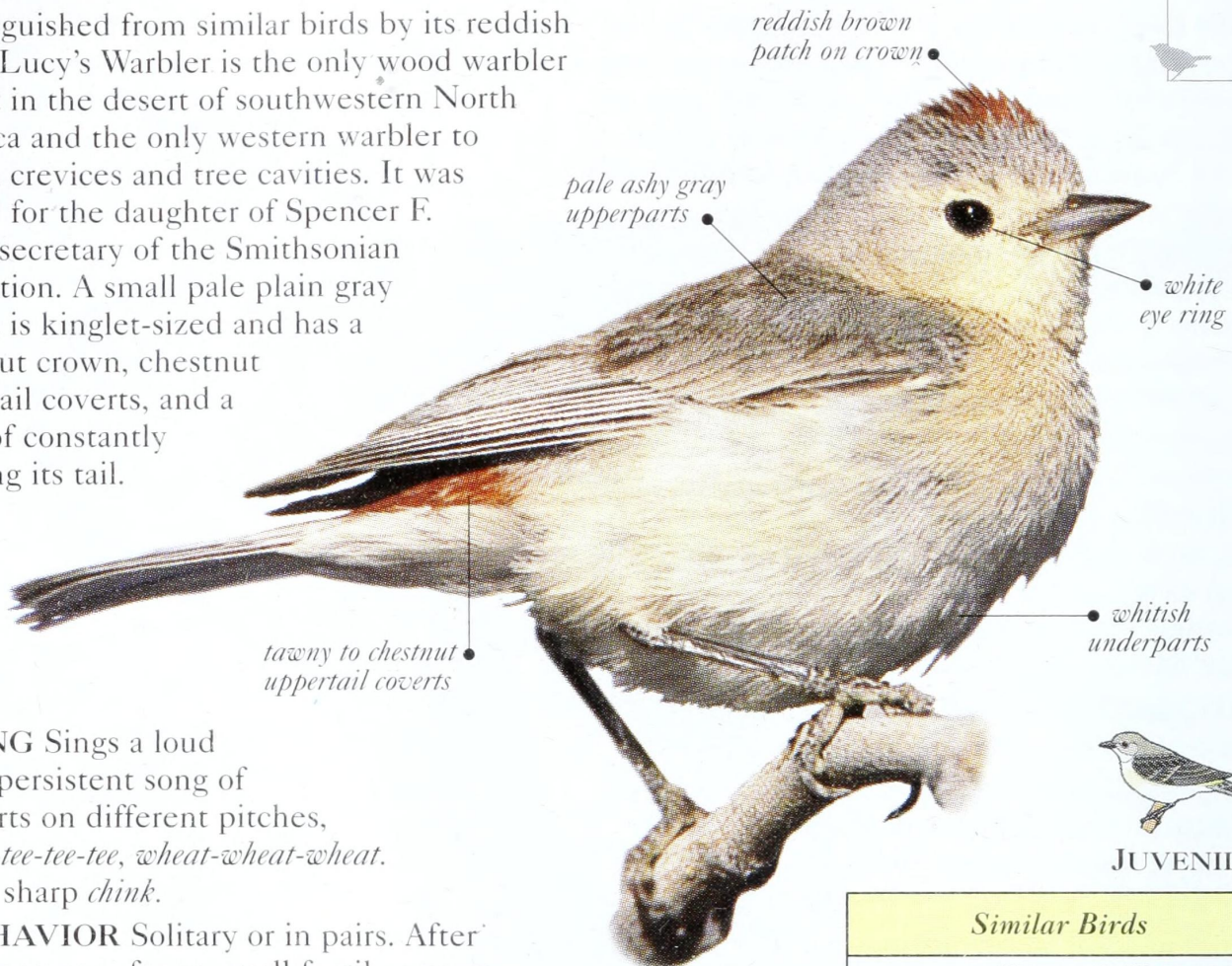
Plumage Sexes similar	Habitat  	Migration Migratory	Weight 0.4 ounce
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DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Vermivora luciae</i>	Length 4.25 inches	Wingspan 7 inches
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LUCY'S WARBLER

Distinguished from similar birds by its reddish rump, Lucy's Warbler is the only wood warbler to nest in the desert of southwestern North America and the only western warbler to nest in crevices and tree cavities. It was named for the daughter of Spencer F. Baird, secretary of the Smithsonian Institution. A small pale plain gray bird, it is kinglet-sized and has a chestnut crown, chestnut uppertail coverts, and a habit of constantly bobbing its tail.



JUVENILE

- **SONG** Sings a loud sweet persistent song of 2–3 parts on different pitches, *tea-tea-tee-tee-tee*, *wheat-wheat-wheat*. Call is sharp *chink*.
- **BEHAVIOR** Solitary or in pairs. After nesting season, forms small family groups and may join mixed-species foraging flocks. Active. Constantly on the move. Bobs tail habitually. Forages for food in foliage of trees, flowers, and shrubbery. Eats mostly insects and moths. Probes blossoms of cacti. Among North American warblers, only it and the Prothonotary are hole nesters.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Breeding biology poorly known. Estimated incubation 10–12 days by both sexes. Young altricial; brooded by female; stay in nest estimated 10–11 days, fed by both sexes. 2 broods per year.
- **POPULATION** Fairly common in desert riparian thickets with willows and cottonwood and in stands of mesquite. Declining over much of range.

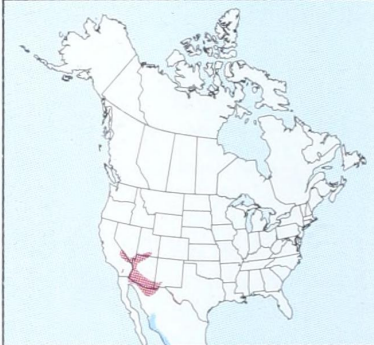
Similar Birds



VIRGINIA'S WARBLER
Juvenile • larger; greenish yellow rump; yellowish undertail coverts; prominent white eye ring.



BELL'S VIREO
Larger; big-headed; white spectacles; 2 whitish wing bars; greenish gray cast to upperparts; also habitually bobs tail.



Flight Pattern

Rather weak fluttering direct flight on rapidly beating wings.

Nest Identification

Shape Location

• **CONSERVATION** Declining due to clearing of riparian woodlands. Occasional host to cowbird parasitism. Neotropical migrant. Accidental in the East.

Pieces of bark, leaf stems, and weeds, lined with hair, fur, and fine bark chips • abandoned woodpecker holes, other birds' nests, or tree hollows • built by both sexes • 3–7 white to creamy white eggs, flecked with browns, usually concentrated at larger end; ovate to short ovate, 0.57 x 0.45 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.2 ounce
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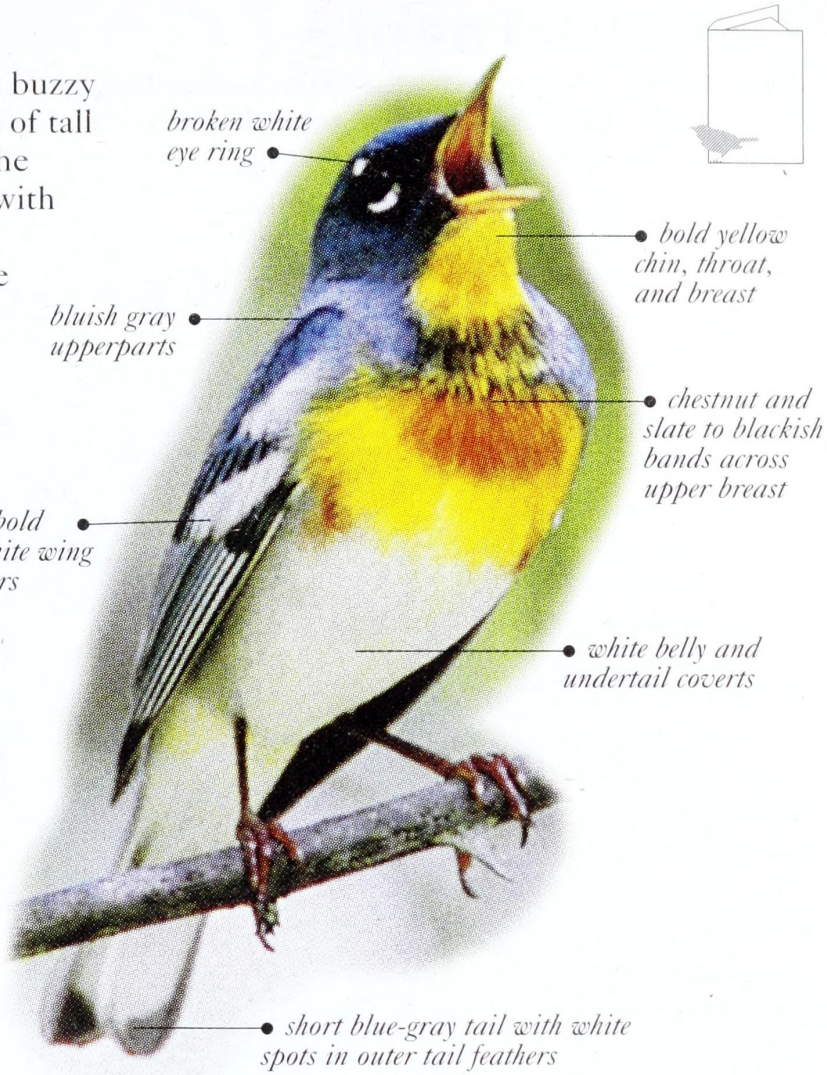
DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Parula americana</i>	Length 4.25 inches	Wingspan 7 inches
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NORTHERN PARULA

The male often can be heard singing its buzzy song during migration and from the tops of tall trees on its nesting ground. Nesting in the Deep South, it most often is associated with Spanish moss-covered trees, while more northern nests are in trees laced with the lichen *Usnea*. Both are important for construction of the nest. Females lack the chestnut/slate breast bands.

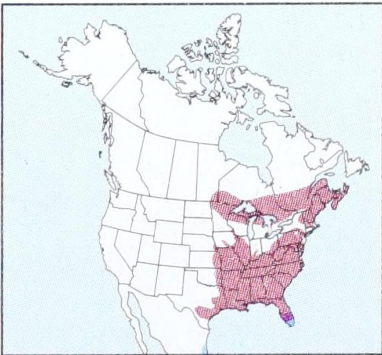
- **SONG** Ascending insectlike buzzy trill of zeeeeeeee-yip, which rises and trips over the top; the equivalent of the bird filling a cup with its song and running it over the rim. Secondary song is series of slow rising buzzy notes ending in a trill, reminiscent of the Cerulean Warbler. Regional variation; western birds often lack the abrupt downward ending note. Call note is a sharp chip.
- **BEHAVIOR** Solitary or in pairs. Allows close approach. Active, acrobatic forager; sometimes upside down to hunt for insects on trunk, cluster of leaves, or branch tip; hover gleanes and hawks flying insects. Eats insects, caterpillars and larvae, and spiders. One of the smallest warblers, often dominated by other birds, including other warbler species.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 12–14 days by both sexes; more by female. Altricial young brooded by and fed mostly by female. 1–2 broods per year.
- **POPULATION** Common in boreal forest, mixed hardwoods, bottomland forests, riparian corridors, and swamps. Rare in the West in migration.
- **CONSERVATION** Neotropical migrant. Rare cowbird host.



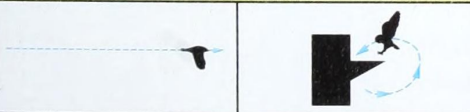
Similar Birds



TROPICAL PARULA
More extensive yellow on underparts; orange wash on breast; lacks chestnut and gray-black chest bands; lacks white eye ring; often has dark mask.



Flight Pattern



Relatively swift flight of short duration on rapidly beating wings. Sallies forth to take insects in midair, returning to perch.

Nest Identification

Shape  Location 

Vulnerable to habitat loss due to logging, clearing of bottomland hardwoods for agriculture. Declining in Great Lakes region and on Atlantic Coast due to loss of *Usnea* lichen as a result of air pollutants.

Lined with fine grasses, moss, and plant down • in Spanish moss, *Usnea* lichen, or tangled vine, hanging from tree, 0–55 feet above ground • built by female • 3–7 white to creamy white eggs, splotted and flecked with browns; subelliptical to short subelliptical, 0.64 x 0.47 inches.

Plumage Sexes differ	Habitat 	Migration Migratory	Weight 0.3 ounce
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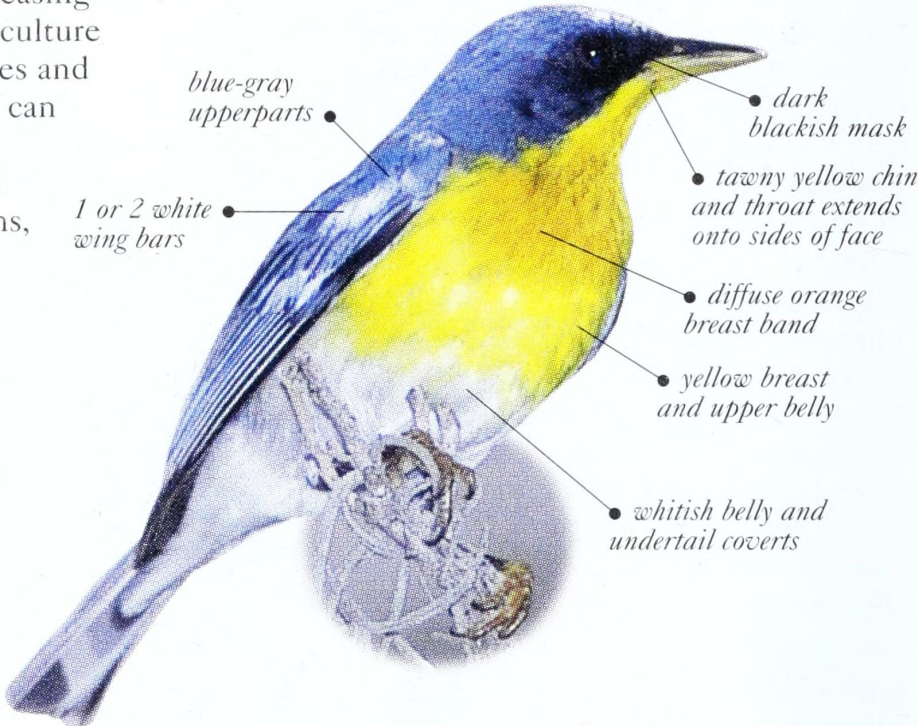
DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Parula pitiayumi</i>	Length 4.5 inches	Wingspan 7 inches
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TROPICAL PARULA

This warbler is a rare to uncommon nesting bird in southern Texas. It was more common along the lower Rio Grande before increasing development and intensified agriculture brought increased use of pesticides and clearing of riparian forests. It still can be found in thick riparian woods festooned with Spanish moss and bromeliads along the river, lagoons, and *resacas*. Its dark mask and lack of a white eye ring set it apart from its close relative, the Northern Parula. In flight it shows an olive-green patch on the center of its back and flanks often washed with cinnamon. Females are similar to males but show duller coloring and often lack the black mask. Although nonmigratory, some retreat from the northern part of the range in winter.

- **SONG** A buzzy insectlike trill of *zeeee-yip* or *zzzzzzzzzzirrr* and varied thin buzzy notes. Has a sharp call of *chik, chik*.
- **BEHAVIOR** Solitary or in pairs. Similar habits to Northern Parula. Forages in lower to middle levels of trees. Eats mostly insects and berries, which it gleans from branches and foliage. Sometimes hovers over food before dipping down to pick it off. Sallies forth from perch to hawk insects in flight. Frequents stands of trees with heavy growths of Spanish moss, which is important for nest construction and concealment.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation period and length of stay in nest undetermined. Altricial young brooded by female, fed by both sexes. 1–2 broods per year.
- **POPULATION** Uncommon in North America along lower Rio Grande Valley of Texas.



Flight Pattern

Weak fluttering flight with brief periods of wings pulled to sides. Flies forth to snatch insects in flight, returning to perch.

Nest Identification

Shape

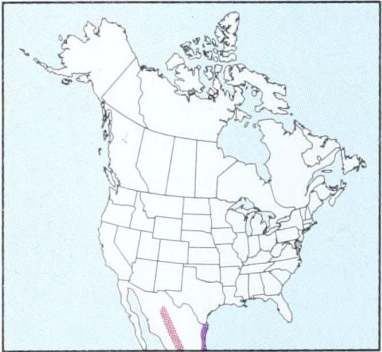
Location

- **CONSERVATION** Neotropical migrant. Rare to casual north of the Rio Grande in Texas and adjacent Mexico; has declined significantly during 20th century due to habitat loss.
- Bits of bark, mosses, roots, grasses, and hair, with lining of plant down and feathers • set into pocket of Spanish moss or hanging vine, 8–40 feet above ground • sex of nest-builder undetermined • 3–4 white to creamy white eggs, with fine dots of browns, usually wreathed at larger end; ovate to short ovate, 0.64 x 0.48 inches.

Similar Birds

NORTHERN PARULA
Dark chestnut breast band; less extensive yellow underparts not extended as far onto belly or sides of face; broken white eye ring.

CRESCENT-CHESTED WARBLER
White supercilium widens behind eye; lacks wing bars and crescent-shaped chestnut spot on chest • western range.



Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 0.1 ounce
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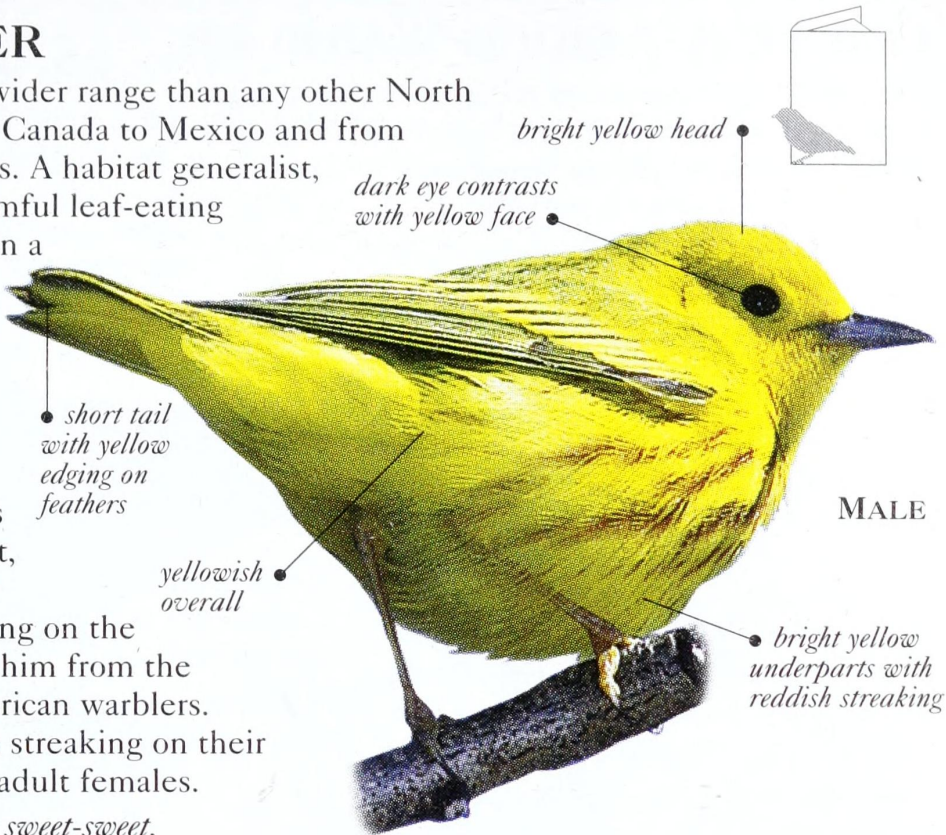
DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Dendroica petechia</i>	Length 5 inches	Wingspan 7.75 inches
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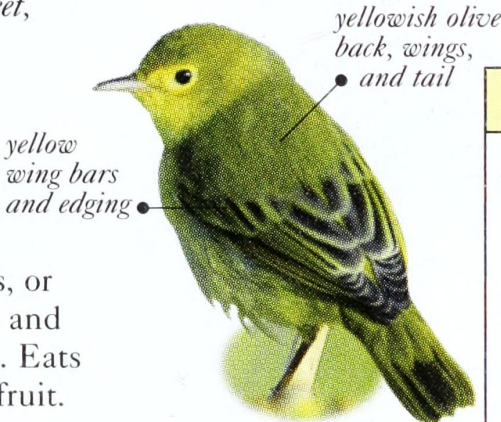
YELLOW WARBLER

This plump-bodied bird has a wider range than any other North American warbler, nesting from Canada to Mexico and from the Pacific to the Atlantic Coasts. A habitat generalist, like many warblers, it feeds harmful leaf-eating caterpillars to its nestlings. When a cowbird invades and lays eggs in this warbler's nest, the female builds a roof over all of the eggs, both hers and the brood parasite's, and often lays a new set on the "new" nest floor. As many as six stories have been found in a single nest, each floor containing entombed cowbird eggs. Bright red streaking on the male's underparts distinguishes him from the female and all other North American warblers. Females may have faint reddish streaking on their underparts. Juveniles resemble adult females.

- **SONG** Sings a swift warbling *sweet-sweet, I'm-so-sweet* or *tseet-tseet-tseet-titi-deet*, bouncy and variable. Similar to some songs of Chestnut-sided Warbler and American Redstart.
- **BEHAVIOR** Solitary or in pairs. Tame and conspicuous. Active. Forages in bushes, shrubs, or trees. Gleans food from branches and foliage; sometimes hawks insects. Eats mostly insects, larvae, and some fruit.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 11–12 days by female. Altricial young brooded by female; stay in nest 9–12 days, fed by both sexes. 1–2 broods per year.
- **POPULATION** Common and widespread in riparian thickets, second-growth woodlands, gardens, orchards, and wetlands.



MALE



FEMALE

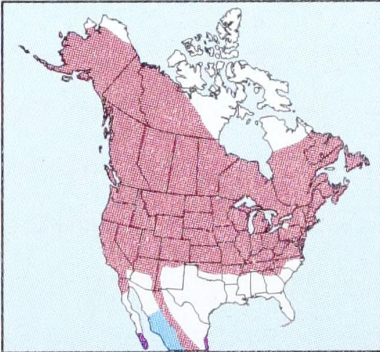
Similar Birds



WILSON'S WARBLER ♀
Female and juvenile
• longer darker tail; lacks yellow tail spots; more uniform olive-green coloring on upperparts; no wing bars; female may show trace of dark cap.



ORANGE-CROWNED WARBLER
Olive-green overall; paler underparts with dusky streaking; uniform dark tail without pale edging or spots; lacks wing bars.



- **CONSERVATION** Neotropical migrant. Common host to cowbird parasitism. Vulnerable to habitat loss, especially in riparian areas, and to herbicide spraying of willow thickets for grazing.

Flight Pattern

Weak, fluttering flight with brief periods of wings drawn to sides. Sallies out to snatch insects in air and returns to perch.

Nest Identification

Shape

Location

Strongly built from plant material, grasses, moss, lichen, and fur, bound with spider's silk and cocoon material; lined with fine materials • in fork of tree or bush, 6–14 feet high (but up to 60 feet) • built mostly by female; male watches • 3–6 grayish, green, or bluish white eggs, splotched with grays, olives, and browns, wreathed at large end; oval to short oval, 0.7 x 0.5 inches.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.3 ounce
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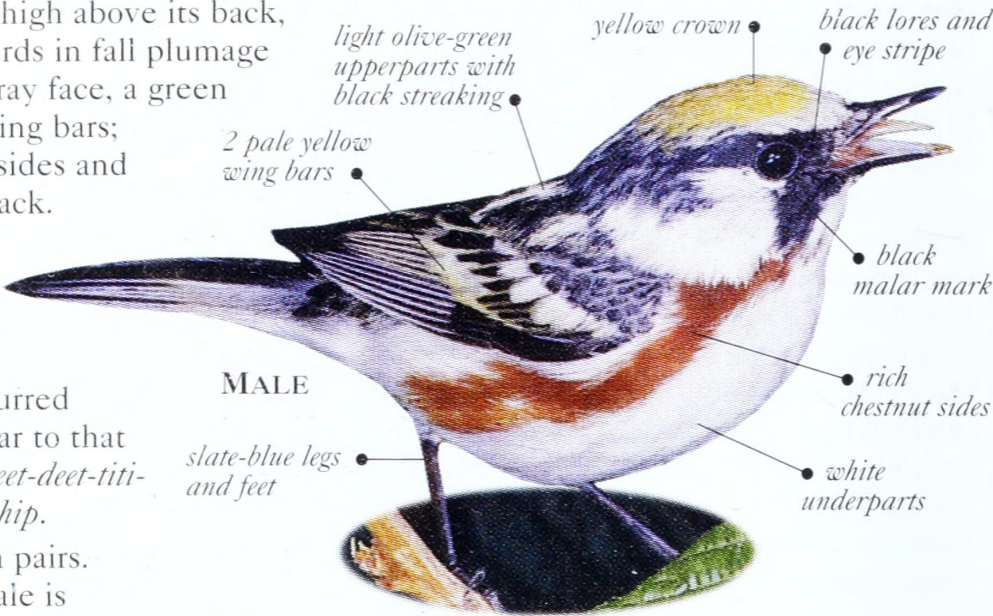
DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Dendroica pensylvanica</i>	Length 5–5.25 inches	Wingspan 7.5–8.25 inches
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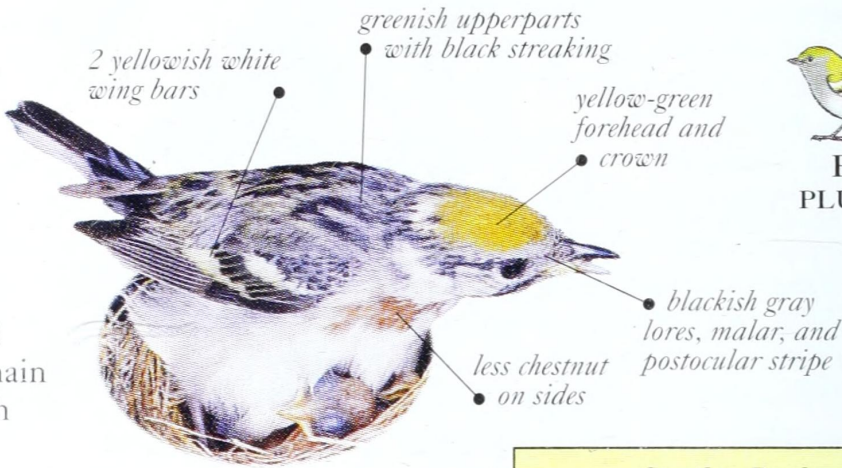
CHESTNUT-SIDED WARBLER

The only North American warbler with pure white underparts in all seasons, this bird most often lives in second-growth deciduous woodlands. An active feeder, it often cocks its tail high above its back, exposing a white crissum. Birds in fall plumage have a white eye ring on a gray face, a green crown, and creamy yellow wing bars; males have chestnut on the sides and black streaking on a green back.

- **SONG** High-pitched *please-please-pleased-to-meetcha*. Alternate or “second” song lacks strong up-and-down slurred notes at the end and is similar to that of the Yellow Warbler, *deet-deet-deet-titi-deet*. Call is a husky slurred *chip*.
- **BEHAVIOR** Solitary or in pairs. Tame and active. Singing male is conspicuous on territory. Picks food off leaves of trees and forages on ground. Catches insects in flight. Eats insects, caterpillars, seeds, and berries.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 11–13 days by female. Altricial young brooded by female; remain in nest 10–12 days, fed by both sexes. 1–2 broods per year.
- **POPULATION** Fairly common to common in brushy thickets, second-growth deciduous woodlands, brushy old fields, and young clear-cuts. Rare migrant in West.
- **CONSERVATION** Neotropical migrant. Vulnerable to habitat loss through natural succession processes. Rare in the early 1800s, but became increasingly common as eastern forests were cut, and brushy, early succession-stage woody habitats emerged. Declining in some areas as current forests mature.



MALE



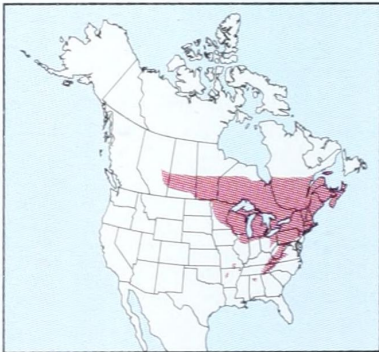
FEMALE



FALL PLUMAGE

Similar Birds

All plumages are distinctive and if seen well are not likely to be confused with any other warbler.



Flight Pattern

Weak fluttering flight with brief periods of wings drawn to sides. Sallies forth to snatch insects in air, returning to perch.

Nest Identification

Shape

Location

Bark chips, vines, and plant material, with lining of animal hair and grasses

- in fork of small tree or shrub, or in blackberry thicket, 1–4 feet above ground
- built by female
- 3–5 white to greenish white or creamy white eggs, with purple and brown blotches; oval to short oval, 0.66 x 0.5 inches.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.4 ounce
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DATE _____ TIME _____ LOCATION _____

Family PARULIDAE

Species *Dendroica magnolia*

Length 5 inches

Wingspan 7.75 inches

MAGNOLIA WARBLER

Often fanning its tail to show its broad white subterminal band and yellow rump, this bird nests in damp coniferous forests. The tail from below is white at the base with a black terminal band. From above, the white band is interrupted in the middle. Females are similar but show two white wing bars and sometimes a white eye ring during their first spring; a black loreal mask may extend onto auriculars.

Juveniles and fall-plumaged birds have gray heads with white eye rings, greenish gray upperparts with black streaking on the males, black streaking on the sides and flanks of males, and faint streaking on the flanks of females.

• **SONG** Brief high-pitched *wee-o, wee-o, wee-chew* or *weety-weety-weeteo*, 2 or 3 slurred phrases with an ending note higher in pitch, emphatic and down-slurred. Call is distinctive nasal dry chip *tzek*.

• **BEHAVIOR** Solitary or in pairs. Tame and active. Males sing from conspicuous perches or while foraging. Often spreading tail, busily gleans insects from branches and foliage; occasionally hawks them in flight. Eats insects, larvae, caterpillars, and spiders.

• **BREEDING** Monogamous. Solitary.

• **NESTING** Incubation 11–13 days by female. Altricial young brooded by female; stay in nest 8–10 days, fed by both sexes. 1 brood per year.

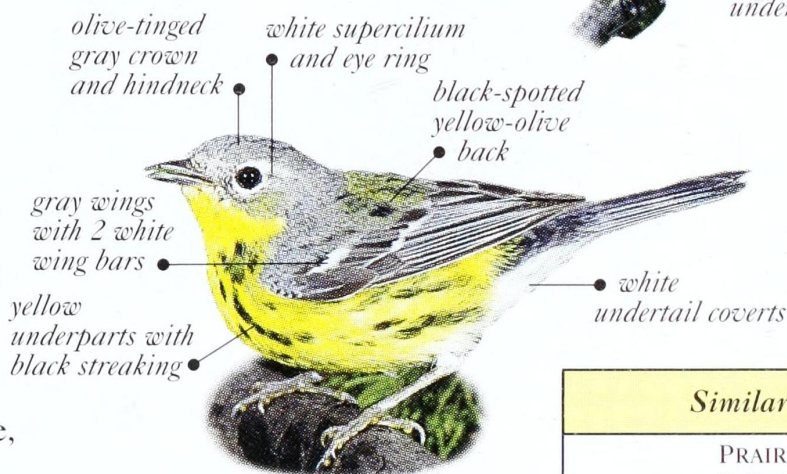
• **POPULATION** Fairly common to common; slight decline in parts of Appalachians, increase in southern Appalachians and in New

England. Casual in winter in Florida. Rare migrant in West.

• **CONSERVATION** Neotropical migrant. Vulnerable to habitat loss. Loss of eastern spruce-fir forests to adelgids and air pollution is causing a decline in numbers.



MALE



FIRST SPRING FEMALE

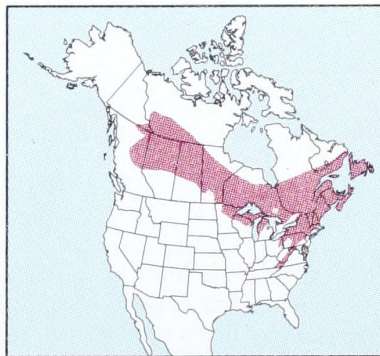


FALL PLUMAGE

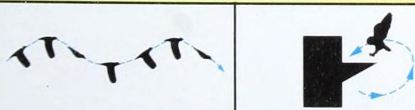
Similar Birds



PRAIRIE WARBLER
Fall • yellowish supercilium; has only arc beneath eye; olive-green rump; uniform olive-green tail; lacks grayish white breast band; pumps tail.



Flight Pattern



Weak fluttering flight with brief periods of wings drawn to sides. Sallies forth to take insects in flight, returning to perch.

Nest Identification

Shape

Location

Grasses and sticks, lined with rootlets • on horizontal branch, usually 1–15 feet above ground • built by both sexes • 3–5 white, creamy white, or greenish white eggs, with brown dots or splotches, sometimes wreathed at larger end; subelliptical to short subelliptical, 0.64 x 0.48 inches.

Plumage Sexes differ

Habitat

Migration Migratory

Weight 0.3 ounce

DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Dendroica tigrina</i>	Length 4.75 inches	Wingspan 7 inches
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CAPE MAY WARBLER

Identifiable by its chestnut cheek patches, this bird is named after Cape May, New Jersey, where it was discovered in 1811. This fairly common inhabitant of northern spruce forests is known for its aggressive behavior of chasing other birds from treetop foraging areas. Females are duller but are easily identified by the yellow rump and patches on the side of the neck. Juveniles and fall-plumaged birds are similar to females, but many have faint gray streaking on pale yellow to whitish underparts.

• **SONG** Sounds like *seet seet seet seet*, high-pitched, wiry, and upslurred, usually in series of 5–6 notes. Call is high thin *seet*.

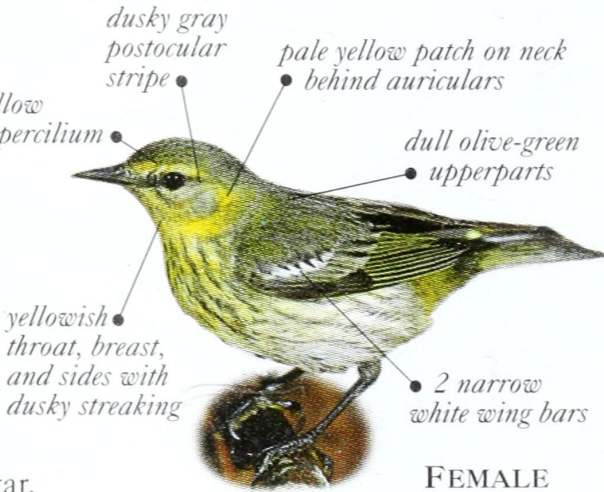
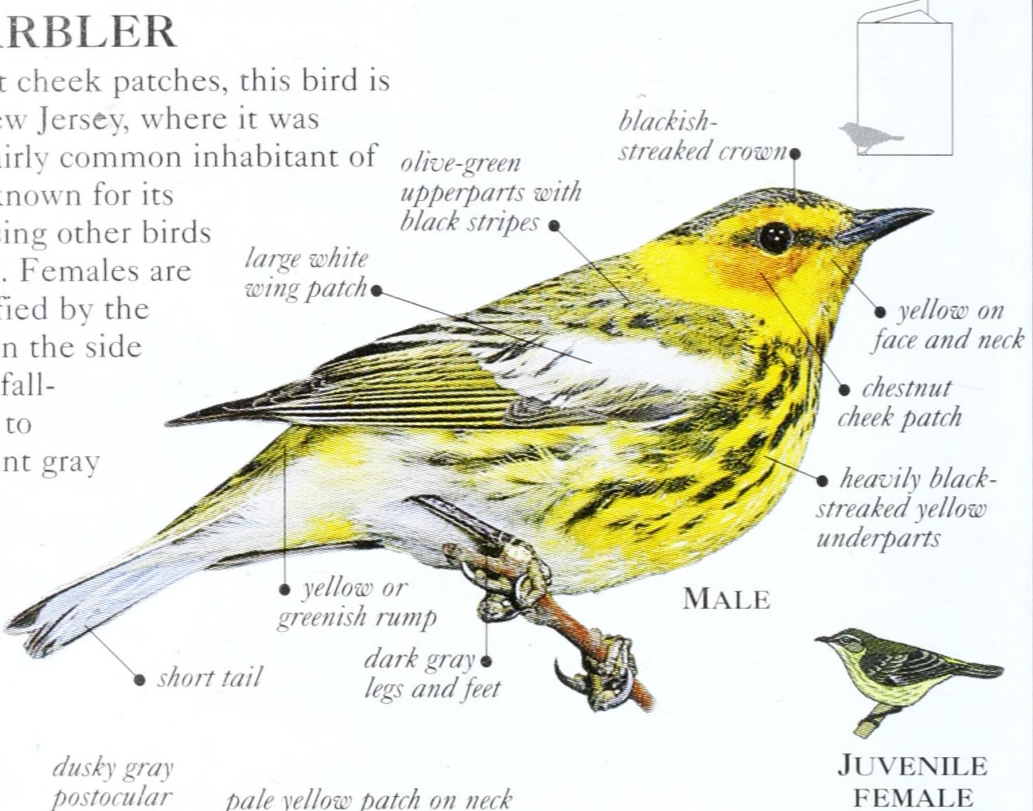
• **BEHAVIOR** Solitary or in pairs. Forages in thickets or high in trees, particularly in conifers on breeding grounds. Hawks insects and spruce budworms. Sometimes drinks tree sap, juice from grapes, and flower nectar.

• **BREEDING** Monogamous. Solitary.

• **NESTING** Breeding biology poorly known. Incubation about 11–13 days by female. Altricial young brooded by female; fed by both sexes; stay in nest estimated 10–12 days. 1 brood per year.

• **POPULATION** Uncommon in spruce fir forests; may become locally common during spruce budworm outbreaks. Declining short-term populations. Very rare to casual in West during migration.

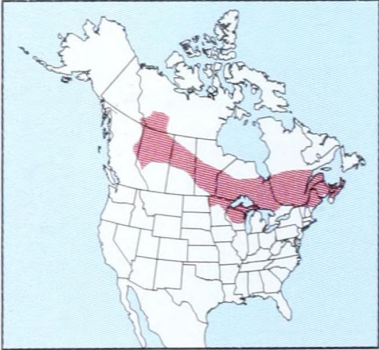
• **CONSERVATION** Neotropical migrant. Vulnerable to loss of breeding and wintering grounds due to deforestation and forest fragmentation.



Similar Birds

YELLOW-RUMPED WARBLER ♀
Larger; browner upperparts; coarse dusky streaks on underparts; yellow patch on sides of chest; yellow rump; lacks yellow on neck; distinct facial pattern; longer tail; chip or check notes distinctive.

PALM WARBLER
Fall • distinct pale supercilium; yellow undertail coverts; usually found at ground level; wags tail.



Flight Pattern	
Weak fluttering flight with brief periods of wings pulled to sides; sometimes sallies from perch to take insects in flight.	
Nest Identification	
Shape	Location

Thickly lined with fine materials, including moss, vines, and weed stalks • 30–60 feet above ground on branch of spruce or fir • built by female • 6–9 creamy white eggs, with gray or brown spots; ovate to short ovate, 0.66 x 0.5 inches.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.4 ounce
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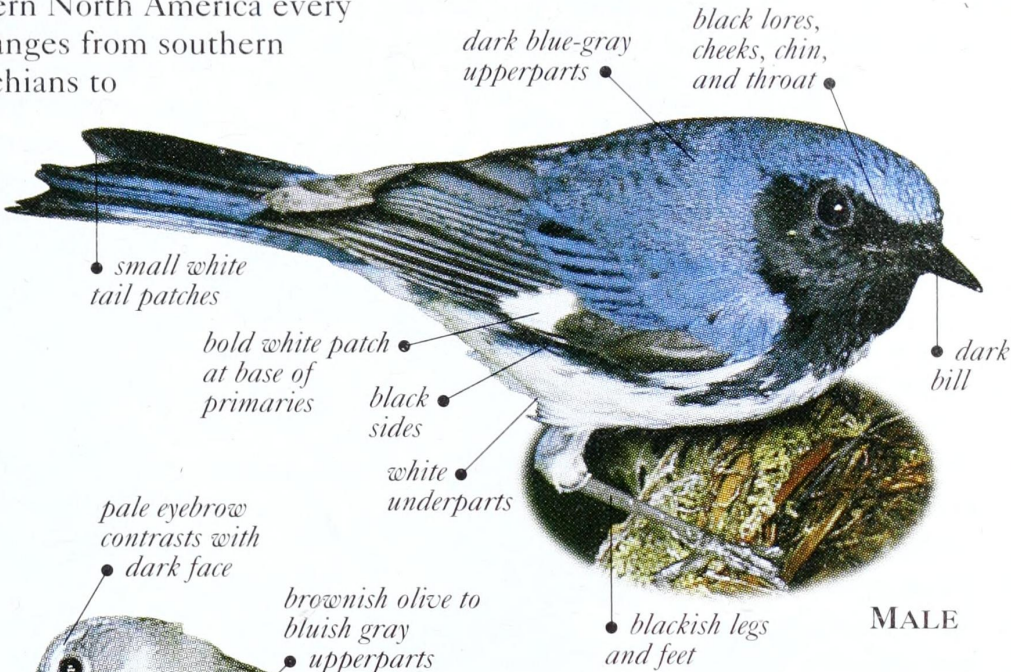
DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Dendroica caerulescens</i>	Length 5.25 inches	Wingspan 7–7.5 inches
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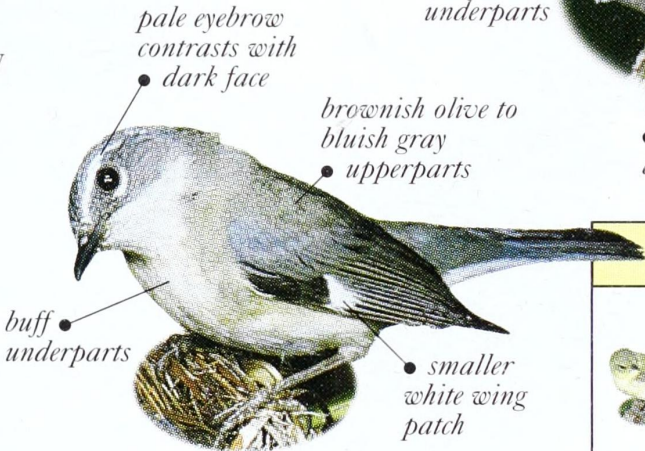
BLACK-THROATED BLUE WARBLER

Easily identified by its deep blue-gray back, white underparts, and white wing patch, this common migratory bird can be seen across eastern North America every spring and fall. Its nesting ranges from southern Canada through the Appalachians to northern Georgia. Females differ from their mates more than any of the wood warblers, with brownish olive to gray upperparts, whitish supercilium, and small white patch at the base of the primaries. Juvenile females sometimes lack the white patch.

- **SONG** A breathy buzzy *zwee-zwee-zwee-zweeee*, “I am lazy,” or *zur-zurr-zree*. Call is abrasive *dit*.
- **BEHAVIOR** Solitary or in pairs. Tame and trusting. Forages in low and middle level trees and underbrush. Sometimes hawks insects in flight. Eats insects and their larvae. In migration and winter, also takes fruit and seeds and may feed from sapsucker drill wells.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 12–13 days by female. Young altricial; brooded by female; stay in nest 1–12 days, fed by both sexes. 1 brood per year.
- **POPULATION** Common in deciduous and mixed coniferous forests with dense undergrowth, rhododendron thickets, and bogs, often on mountain slopes. Western vagrant in migration.



MALE



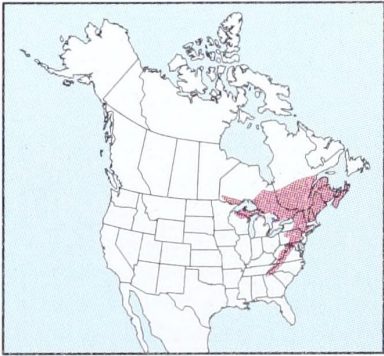
FEMALE

Similar Birds

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TENNESSEE WARBLER
Unbroken whitish supercilium; lacks white wing patch; bright greenish olive back; grayish white underparts with white crissum; short tail.
- 

ORANGE-CROWNED WARBLER
Yellow to greenish olive upperparts; yellow-green underparts; yellowish crissum; indistinct supercilium.



Flight Pattern



Relatively weak flight with series of rapid wing beats alternating with brief periods of wings pulled to sides. Sallies from perch to snatch insect in air; returns to perch.

Nest Identification

Shape  Location 

- Uncommon in winter in Florida.
- **FEEDERS** Suet and peanut butter in migration and winter.
 - **CONSERVATION** Neotropical migrant. Uncommon host to cowbird parasitism. Vulnerable to habitat loss due to deforestation.

Bark pieces, dried grasses, stems, and leaves, with lining of fur, hair, mosses, and rootlets • built by both sexes • 0.5–3 feet above ground • 3–5 white to creamy white eggs, flecked or marked with grays and browns; ovate to short ovate, rarely tending to elongate ovate, 0.66 x 0.5 inches.

Plumage Sexes differ	Habitat 	Migration Migratory	Weight 0.4 ounce
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DATE _____ TIME _____ LOCATION _____

Family PARULIDAE		Species <i>Dendroica coronata</i>	Length 5.5 inches	Wingspan 8.5 inches
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YELLOW-RUMPED WARBLER

In the East this is the most prevalent migrating warbler, and in winter it is the most abundant in North America. Plumage varies with geography. In the West the group known as Audubon's Warbler has a yellow throat and broken white eye ring. The northern and eastern group known as the Myrtle Warbler has white eyebrows, a white arc beneath the eye, and white on the throat and both sides of the neck. Until recently these groups were considered two species, but they interbreed where their ranges overlap and have been classified as geographic races of one species. Juveniles are similar to winter adults.

- **SONG** Variable slow warble that often slows in the middle then speeds up and ends on rising or falling notes. Some have musical trill. Call is loud check, chup, or chip.
- **BEHAVIOR** Solitary or in pairs. Gregarious in winter, often joins mixed feeding flocks. Gleans or hover-gleans on ground and in bushes and trees; also hawks. Able to live for long periods on berries and seeds. Also eats insects and spiders, and drinks tree sap and juice from fallen oranges.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 12–13 days by female. Altricial young brooded by female; stay in nest 10–12 days, fed by both sexes. 2 broods per year.
- **POPULATION** Abundant in coniferous or mixed forests; wooded and brushy habitats in winter. In winter Myrtle form common in East, fairly common on West Coast; Audubon's form casual in East in winter.

Flight Pattern



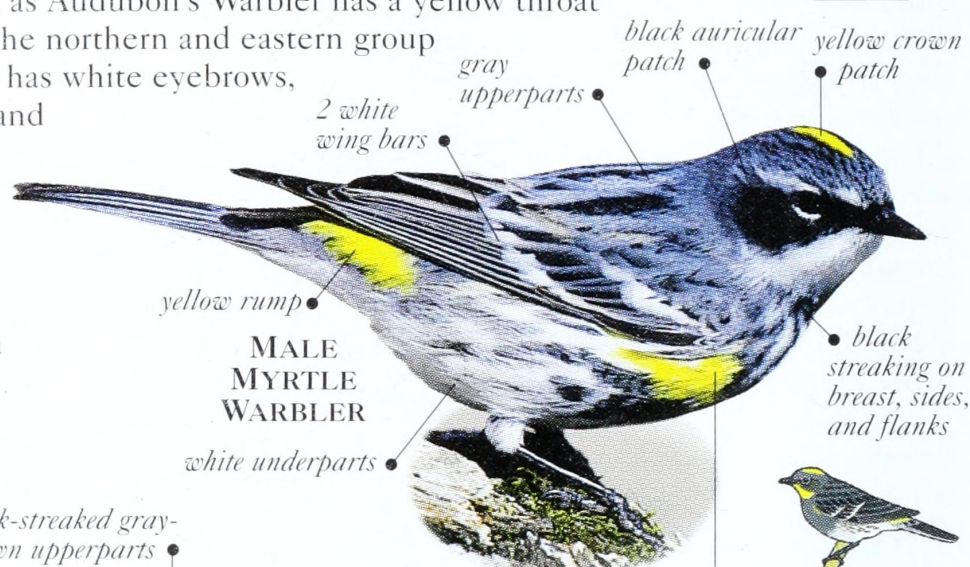
Fairly rapid flight with quick wing strokes, alternating with brief periods of wings pulled to sides. Sallies forth and takes insects in flight, returning to perch.

Nest Identification

Shape 

Location 

Shredded bark, weed stalks, twigs, and roots, lined with feathers • 4–50 feet above ground in conifer • built by female • 3–5 white to creamy eggs, with brown and gray markings, occasionally wreathed; oval to short oval, 0.7 x 0.53 inches.



MALE MYRTLE WARBLER



FEMALE MYRTLE WARBLER



AUDUBON'S BREEDING MALE



WINTER PLUMAGE



FALL MYRTLE

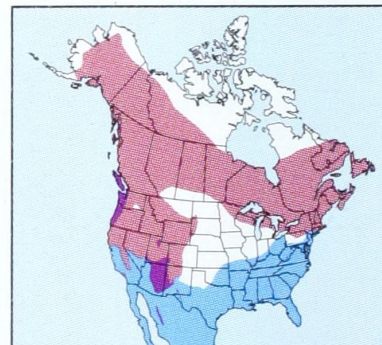
Similar Birds



PALM WARBLER Juvenile • yellow undertail coverts; white spots in tail corners; pumps tail.



CAPE MAY WARBLER Juvenile • smaller; yellow on sides of neck; shorter tail; dull green rump; pale yellow wash on center of breast.



Plumage Sexes differ	Habitat 	Migration Migratory	Weight 0.5 ounce
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DATE _____

TIME _____

LOCATION _____

Family PARULIDAE	Species <i>Dendroica nigrescens</i>	Length 4.75–5 inches	Wingspan 7.5–8 inches
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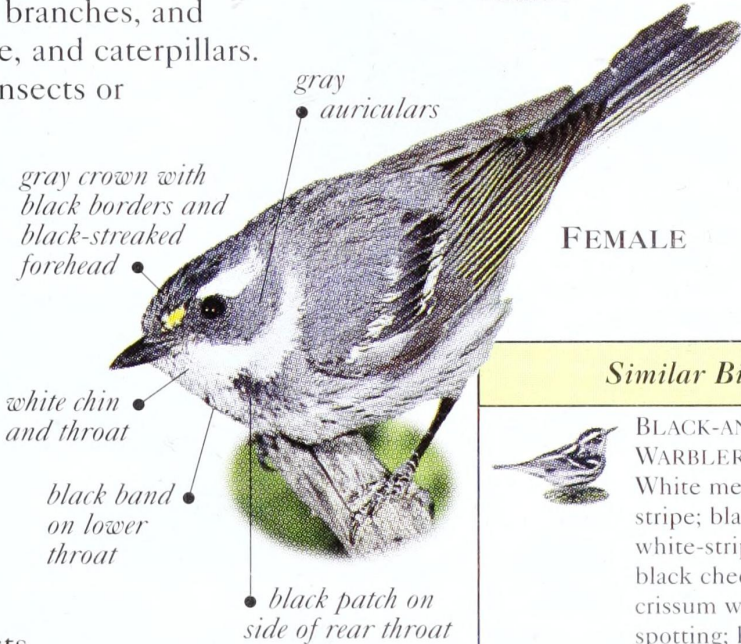
BLACK-THROATED GRAY WARBLER

Its streaked plumage serves as camouflage in the coniferous forests and scrub-oak woodlands where this bird makes its home. The female is similar to the male but has a white throat and shows mostly gray coloring where the male bird shows black. Its pattern is very similar to that of a Townsend's Warbler but with the grays replaced by yellow-greens and the whites by yellow. The only yellow in the plumage of this bird is the small dot on the supralorals.

- **SONG** Varied. A buzzy insectlike *weezy, weezy, weezy, weezy, wueeo*, with the last note or next to the last note higher. Call is a dull *tip*.
- **BEHAVIOR** Solitary or in pairs. Often joins mixed-species foraging groups outside breeding season. Forages at low to middle levels for food, which it gleans along twigs, branches, and leaves of trees. Eats insects, larvae, and caterpillars. Active and energetic; may hawk insects or hover glean for food.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Breeding biology poorly known. Incubation estimated at 12 days by female. Young altricial; brooded by female; estimated to stay in nest 8–10 days, fed by both sexes. 1 brood per year.
- **POPULATION** Fairly common to common in chaparral, dry coniferous and mixed coniferous-deciduous forests, and scrub-oak woodlands in mountains. Casual to rare in the East; rare in migration and in winter on the Gulf Coast and Lower Rio Grande Valley of Texas.



MALE



FEMALE

Similar Birds



BLACK-AND-WHITE WARBLER
White median crown stripe; black-and-white-striped back; black cheeks; white crissum with black spotting; lacks yellow supraloral spot.

Flight Pattern



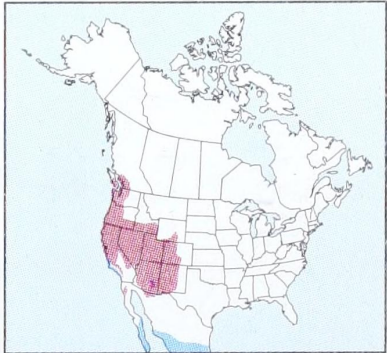
Weak flight with rapid wing strokes alternating with brief periods of wings pulled to sides. Sallies forth to take insects in flight and returns to same perch.

Nest Identification

Shape 

Location 

Plant fibers, grasses, and weed stalks, with lining of feathers, animal hair, mosses, and flower stems • in fork or on branch of tree, usually 3–10 feet above ground • built by female • 4–5 white or creamy white eggs, with purple and brown splotches and dots; usually ovate or short ovate, 0.67 x 0.5 inches.



Plumage Sexes differ	Habitat 	Migration Migratory	Weight 0.3 ounce
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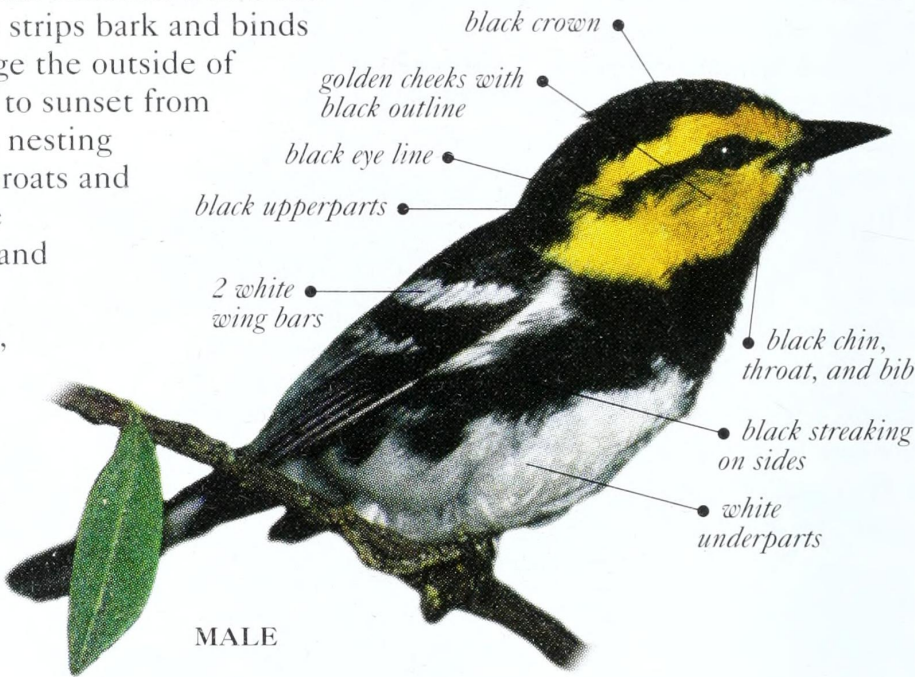
DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Dendroica chrysoparia</i>	Length 4.75–5 inches	Wingspan 7.5–8 inches
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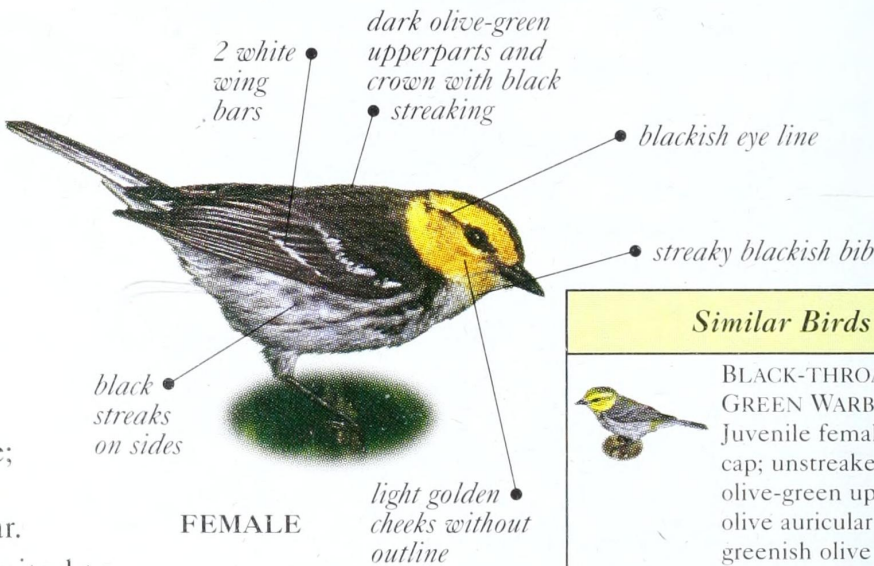
GOLDEN-CHEEKED WARBLER

Now endangered, this habitat specialist of “cedar breaks,” Ashe juniper and oaks, breeds only on or near the Edwards Plateau in Texas and winters in Mexico and Central America. From the mature Ashe juniper the female strips bark and binds it with spider webs to camouflage the outside of its nest. The male sings sunrise to sunset from high conspicuous perches on its nesting territory. Females have white throats and underparts. Juveniles have olive upperparts streaked with black and streaked sides to their throats.

- **SONG** 4–5 harsh buzzy notes, *bzzz-layzee-dayzee* or *tweeah-tweeah-tweesy*. Call is *tip*.
- **BEHAVIOR** Solitary or in pairs. Clings chickadee-like under branches as it forages. Gleans food from foliage, stems, and twigs. Eats mostly insects. Feeds at heights of 30 feet or less, hunting in middle to lower levels. Outside breeding season joins mixed foraging flocks. Returns to breeding grounds in mid-March and males begin territorial songs.
- **BREEDING** Monogamous and solitary.
- **NESTING** Incubation 12 days by female. Young altricial; brooded by female; stay in nest 9 days, fed by both sexes. 1 brood per year.
- **POPULATION** Rare; limited to hill country of central Texas.



MALE



FEMALE

Similar Birds



BLACK-THROATED GREEN WARBLER ♀
Juvenile female • olive cap; unstreaked olive-green upperparts; olive auricular patch; greenish olive rump.

Flight Pattern

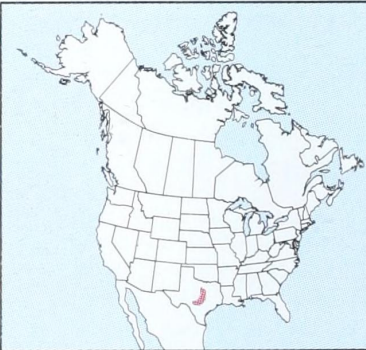


Weak flight with rapid wing strokes alternating with brief periods of wings pulled to sides.

Nest Identification

Shape Location

- **CONSERVATION** Federally endangered. One of the rarest songbirds in North America. Vulnerable to Blue Jay predation, cowbird parasitism, and habitat destruction. Neotropical migrant.



Bark pieces, grasses, spider’s silk, and rootlets, with lining of feathers and hair • in fork of tree, usually 15–20 feet above ground • built by female • 3–5 white to creamy white eggs, with brown and gray dots and flecks; generally ovate to short ovate, 0.75 x 0.5 inches.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.4 ounce
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DATE _____ TIME _____ LOCATION _____

Family PARULIDAE

Species *Dendroica virens*

Length 4.75–5 inches

Wingspan 7.5–8 inches

BLACK-THROATED GREEN WARBLER

Like many in its family, the individual Black-throated Green Warbler sings two different songs, but in two different contexts: one in the vicinity of the female or nest and the other near the territorial boundaries or when stimulated by another male. It is the only warbler in eastern North America with bold yellow cheeks. The female is similar to the male but shows fewer black streaks on the sides of her body, less black on her throat, and has a yellowish chin and upper throat. The juvenile is similar to the female but has a white throat and lacks the black on its breast.

• **SONG** A throaty *trees-trees-whispering-trees* (the territorial/male interaction song) and a hoarse *zay-zay-zay-zoo-zoo-zee* (the pair bonding/nest vicinity song). Call is a flat soft *tsip*.

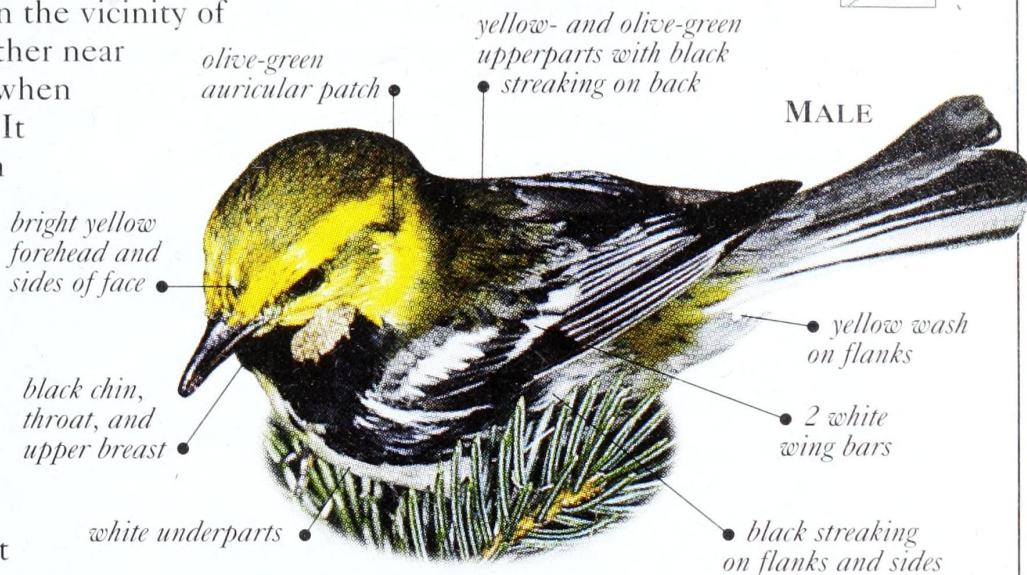
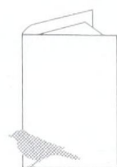
• **BEHAVIOR** Solitary or in pairs. Forages at mid-level in vegetation and in the interior of branches, usually not at the tips. Gleans from twigs and foliage; hover-gleans and may hawk flying prey. Eats adult insects, caterpillars, larvae, and some berries, particularly in migration.

• **BREEDING** Monogamous. Solitary.

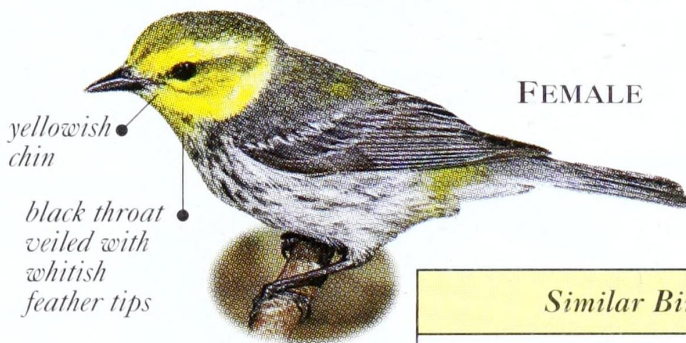
• **NESTING** Incubation 12 days by female. Young altricial; brooded by female; remain in nest 8–10 days, fed by both sexes, but female does more. 1–2 broods per year.

• **POPULATION** Fairly common in a variety of habitats of conifer, mixed deciduous-conifer, and deciduous woodlands. Some winter regularly in southern Florida; casual to accidental in the West. Numbers decreasing in the Great Lakes areas and in parts of New England.

• **CONSERVATION** Neotropical migrant. Vulnerable to habitat loss. Rare host to cowbird parasitism.



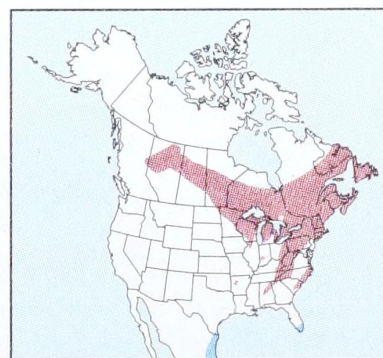
MALE



FEMALE

Similar Birds

- ♂ GOLDEN-CHEEKED WARBLER
Gray to black upperparts with black streaking; black or black-streaked crown; yellow face; black eye line connected to the dark color of nape; black ear patch; white crissum • restricted range in Texas.
- ♀



Flight Pattern



Somewhat weak flight with rapid wing strokes, alternating with brief periods of wings pulled to sides. Sallies from perch, takes insect in air, and returns to perch.

Nest Identification

Shape Location

Dead grasses, plant fibers, and stems, with lining of animal hair, flower stems, and feathers • usually in crotch of small or large evergreen or in hardwood tree on horizontal branch, 3–80 feet above ground • built by both sexes • 3–5 gray-white or creamy white eggs, with brown and purple dots and blotches, often wreathed; oval to short oval, 0.65 x 0.5 inches.

Plumage Sexes differ

Habitat

Migration Migratory

Weight 0.3 ounce

DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Dendroica townsendi</i>	Length 4.75–5 inches	Wingspan 7.5–8 inches
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TOWNSEND'S WARBLER

The western counterpart of the Black-throated Green Warbler nests in high pines and spruces of the Pacific Northwest. The bright yellow underparts and yellow face with black cheek patch are difficult to see because the bird forages and sings in the tops of the mature conifers. Townsend's Warbler often hybridizes with the Hermit Warbler where ranges overlap.

- **SONG** Variable. Raspy high *weezy, weezy, weezy, twee*, rising in pitch but dropping at the end. Call is high sharp *tsik*.
- **BEHAVIOR** Solitary or in pairs. Gregarious after breeding season; joins mixed-species foraging flocks. Aggressive toward other species. Sometimes hover-gleans from branches and foliage. Eats insects, caterpillars, and spiders.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Breeding biology poorly known. Incubation estimated at 12 days by female. Altricial young brooded by female; stay in nest estimated 8–12 days. Fed by both sexes; female may do more. 1 brood per year.
- **POPULATION** Fairly common in coniferous and mixed coniferous-deciduous forests. Casual to accidental in winter and in migration in the East. May be increasing slightly and expanding range southward in Washington and Oregon.
- **FEEDERS** Mixture of peanut butter, cheese, and marshmallows.
- **CONSERVATION** Neotropical migrant. Degree of cowbird parasitism unknown. Subject to forest fragmentation by logging.

MALE

FEMALE

Similar Birds	
	BLACK-THROATED GREEN WARBLER Yellow cheeks and face without dark ear patches; whitish chest; olive back with black streaking; yellowish wash on undertail coverts • eastern breeding range has almost no overlap.
	HERMIT WARBLER Lacks black cheeks and crown; yellow restricted to breast and sides; fine black streaking on sides and flanks.

Flight Pattern	
Relatively weak flight on rapidly beating wings, alternating with brief periods of wings pulled to sides; repeated.	

Nest Identification	
Shape	Location
Bark pieces, plant fibers, lichens, grasses, and cocoon materials, with lining of feathers and animal hair • across limb of conifer, high above ground • built by both sexes • 3–5 white eggs, with fine dots of brown; short ovate, 0.7 x 0.5 inches.	

Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.3 ounce
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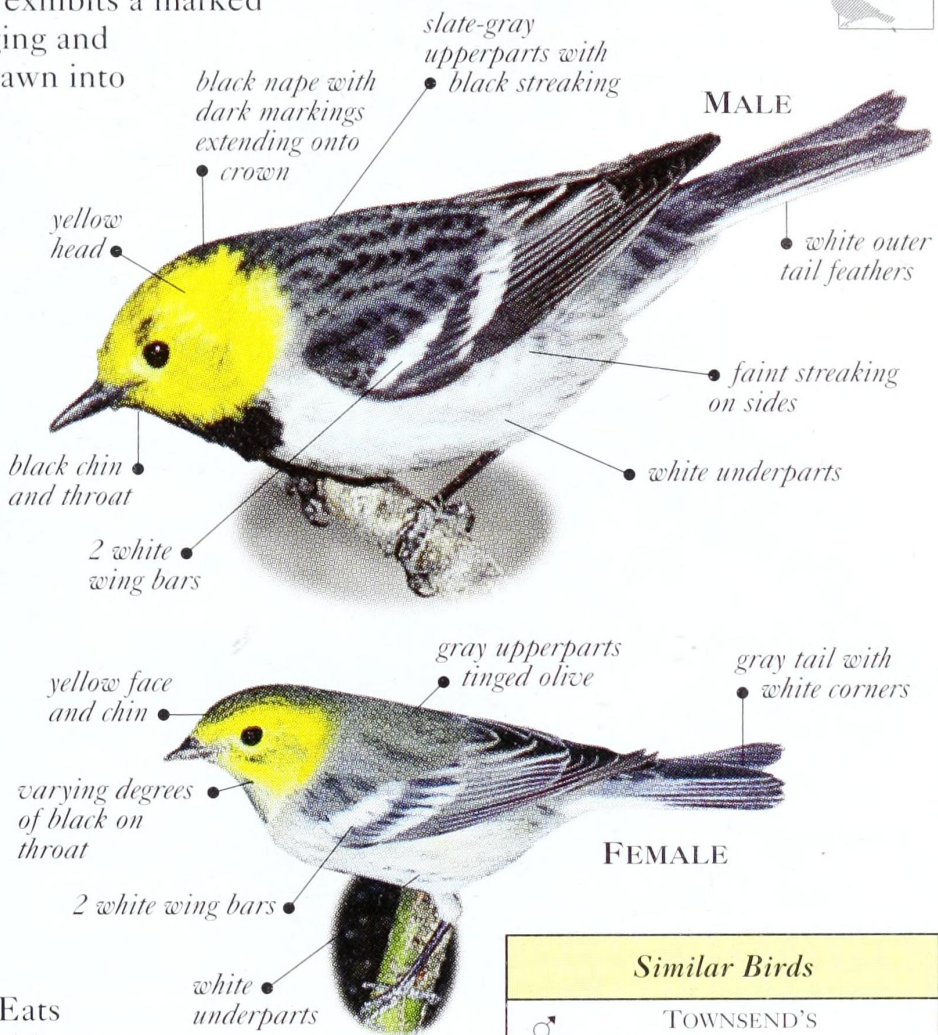
Family PARULIDAE	Species <i>Dendroica occidentalis</i>	Length 5 inches	Wingspan 7.75 inches
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HERMIT WARBLER

This bird is difficult to spot because it spends its time in the tops of tall fir and pine trees. It exhibits a marked partiality to conifers when foraging and nesting. Sometimes it can be drawn into the open when it hears a call or imitation of the Saw-whet Owl.

This warbler generally has gray upperparts and white underparts with a brilliant yellow face. Males have a black throat. Females are similar to males but have a yellow chin and little or no black on the throat. Juveniles are similar to females; juvenile females have more olive to the upperparts.

- **SONG** Highly variable. A vibrant high *wheezy seadle*, *seadle, seadle, zeet-zeet*. Call is a flat *tsik* or *chip*.
- **BEHAVIOR** Solitary or in pairs. Territorial birds sing high up in conifers. Forages for food in high and mid-level branches of trees. Acrobatic, clinging upside down to pick insects off undersides of twigs. Eats adult insects, caterpillars, and spiders, which it gleans from branches and foliage; hover-gleans and sometimes hawks insects in midair. Sometimes hybridizes with Townsend's Warbler.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Estimated incubation 12 days by both sexes. Young altricial; brooded by female; stay in nest estimated 8–10 days, fed by both sexes. 1–2 broods per year.
- **POPULATION** Fairly common. Stable in coniferous forests, especially in mountains. Casual in the East in migration.



Similar Birds

♂



TOWNSEND'S WARBLER
Black to dusky ear patches outlined by yellow face; black streaking on breast, sides, and flanks; more blackish crown; olive back with black streaking; olive rump; yellow breast.

♀



Flight Pattern



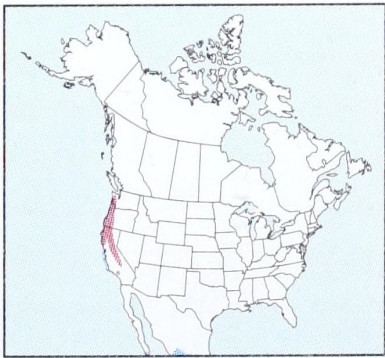
Swift short flights on rapidly beating wings, alternating with brief periods of wings pulled to sides. Hawks flying insects, returning to perch.

Nest Identification

Shape 

Location 

Sticks, plant material, stems, and lichen, with lining of hair, feathers, fine plant stems, and bark pieces • on limb, usually 15–120 feet above ground • built by female • 3–5 white eggs, with red, brown, and lilac blotches, wreathed at larger end; ovate to short ovate, 0.66 x 0.51 inches.



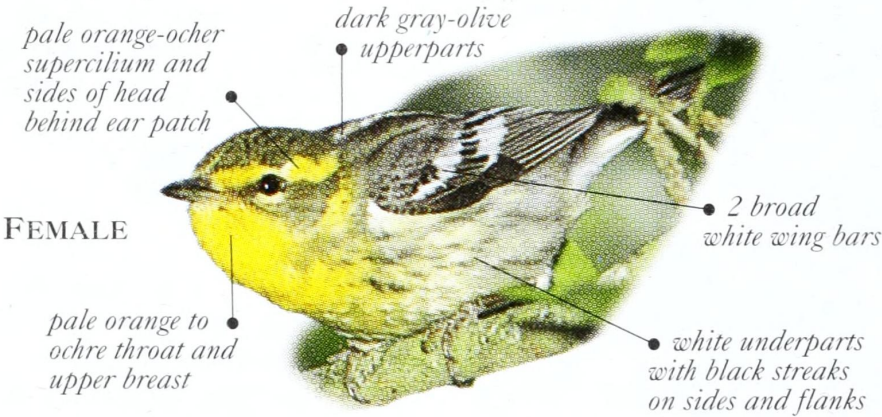
Plumage Sexes differ	Habitat  	Migration Migratory	Weight 0.3 ounce
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Family PARULIDAE	Species <i>Dendroica fusca</i>	Length 5 inches	Wingspan 8 inches
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BLACKBURNIAN WARBLER

Head and throat glowing like embers, the males are unmistakable. Juveniles and fall males are similar. It frequents coniferous or mixed deciduous-conifer forests in most of its breeding range; in the Appalachians, it is also found in lower drier forests of pine-oak-hickory.

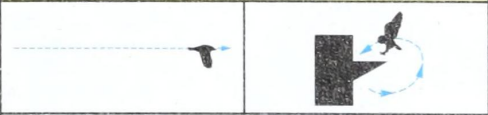
- **SONG** Thin high-pitched ascending trill in 2–3 parts, ending with upslurred note that some people cannot hear: *seep seep seep seep titi zeeeeeee*. Call is rich *tsip*.
- **BEHAVIOR** Solitary or in pairs. May join mixed foraging flocks after breeding. Gleans prey from branches, twigs, and foliage in treetops. Sometimes catches



insects in flight. Eats insects, caterpillars, and some berries.

- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 11–12 days by female. Altricial young brooded by female; stay in nest estimated 9–12 days, fed by both sexes. 1 brood per year.
- **POPULATION** Fairly common in coniferous and mixed deciduous-conifer forests; stable. Strays to California in fall migration. Can be numerous in areas where there are spruce budworm outbreaks.

Flight Pattern

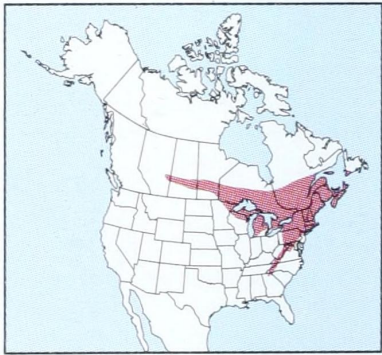


Fairly swift direct flight on rapidly beating wings. Sallies forth from perch, taking insects in midair and returning to perch.

Nest Identification

Shape  Location 

- **CONSERVATION** Neotropical migrant. Infrequent cowbird host. Vulnerable to loss of habitat due to land clearing. Hemlock infestations by insect pests could negatively impact.



Similar Birds

 **TOWNSEND'S WARBLER**
Juvenile female
• yellow throat and chest; olive crown and upperparts; entirely dark bill; more distinct dark streaking on sides.

 **CERULEAN WARBLER**
Female and juvenile male • supercilium broadens behind eye; less distinct rounded ear patch; white or buff underparts; pale lines on back; dark streaks across back; shorter tail
• eastern range.

Plumage Sexes differ	Habitat 	Migration Migratory	Weight 0.4 ounce
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Family PARULIDAE	Species <i>Dendroica dominica</i>	Length 5.25 inches	Wingspan 8.5 inches
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YELLOW-THROATED WARBLER

Some of these birds frequent the old oak trees of the Southeast and Mississippi Valley, where Spanish moss is abundant. Their habitat varies regionally from tall swampy bottomland hardwoods, to oak-pine woods on ridges, to lowland pine forests, to sycamores in riparian corridors. In all habitats, this long-billed warbler sings loudly from the tops of trees, and can be identified by the black face set off by a bold white supercilium and bright yellow chin and throat. The female is similar to the male but duller and has fewer black markings. Most migrate but southern populations are sedentary.

• **SONG** Loud descending series of 3–4 measured whistles, followed by 2–3 weaker notes and more rapid notes, ending with sharper ascending note, *tweete-tweete-tweete-tweete-dee-da-m-deet*. Call note is high soft *tsip*.

• **BEHAVIOR** Solitary or in pairs. Somewhat sluggish and deliberate. Joins mixed-species feeding flocks after breeding season. Creeps along inner branches, twigs, and in foliage, foraging generally in the upper parts of trees; however, sometimes lower and even on the ground. Uses long bill and behavior similar to that of Brown Creeper to extract insects from bark crevices and pick them from the surface. Also catches insects in flight. Eats insects, caterpillars, and spiders.

• **BREEDING** Monogamous. Solitary nester.

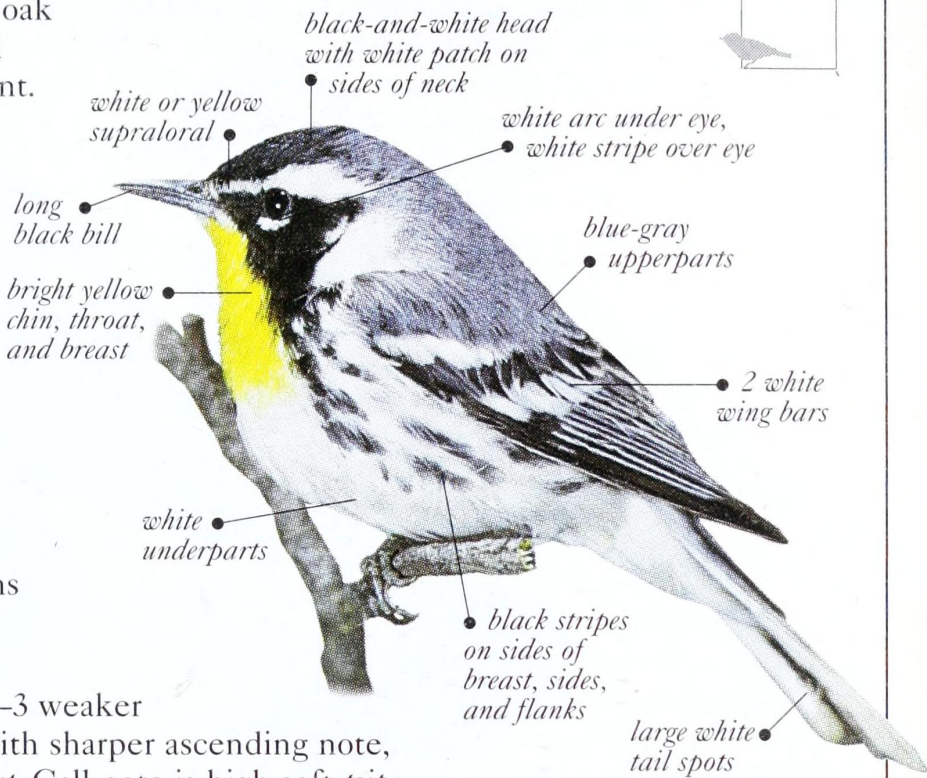
• **NESTING** Breeding biology poorly known. Incubation by female estimated at 12–13 days. Altricial young brooded by female; stay in nest estimated 10 days, fed by female (possibly some by male). 1–2 broods per year.

• **POPULATION** Fairly common in habitat. Stable overall; some expansion in the Northeast and noted decline in the Florida Panhandle and southern Alabama. Casual in the West during fall migration; rare to casual in southeastern Canada during spring migration.

- **FEEDERS** Bread crumbs and suet.
- **CONSERVATION** Neotropical migrant. Infrequent cowbird host. Vulnerable to habitat loss due to logging, land clearing, and development.

Flight Pattern	
	
Fairly swift flight of short duration on rapidly beating wings. Sallies forth from perch, taking insects in air, and returns to perch.	
Nest Identification	
Shape 	Location 

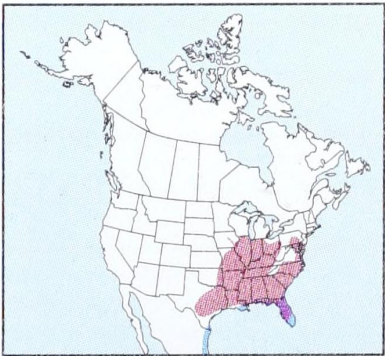
Plant down, stems, grasses, and cocoon material, with lining of feathers and fine plant material • tucked into Spanish moss or on or near end of branch, 10–100 feet above ground • built mostly by female • 4–5 grayish white or greenish white eggs, with lavender, reddish, and grayish flecks and splotches; subelliptical to short subelliptical, 0.68 x 0.51 inches.



Similar Birds



BLACKBURNIAN WARBLER
Juvenile fall male
• shorter bill; yellow-orange throat and supercilium; yellow patch on side of head; blackish back with white stripes; 2 white wing bars; dusky streaks on sides and flanks.



Plumage Sexes similar	Habitat  	Migration Migratory	Weight 0.3 ounce
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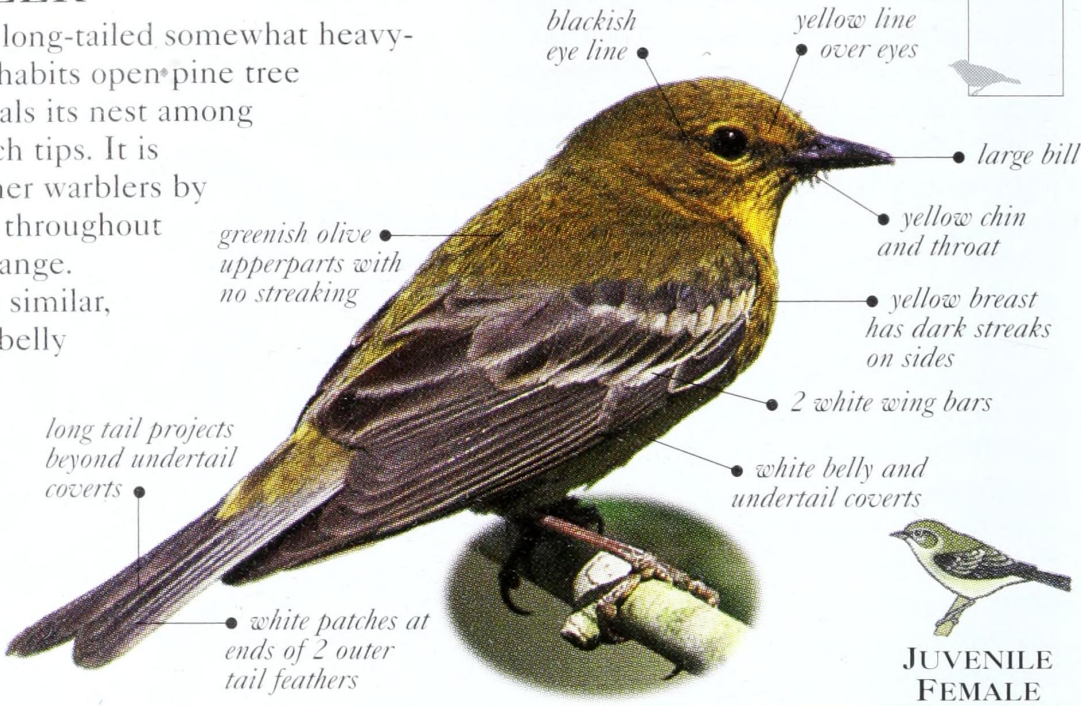
DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Dendroica pinus</i>	Length 5.25 inches	Wingspan 8.5 inches
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PINE WARBLER

True to its name, the long-tailed somewhat heavy-billed Pine Warbler inhabits open pine tree groves, where it conceals its nest among needles near the branch tips. It is distinguished from other warblers by its tendency to winter throughout much of its breeding range. Males and females are similar, both showing a white belly and undertail coverts, although females are duller in color with less yellow on their breasts. Juveniles have brownish to brownish olive upperparts with no streaking, and underparts varying from white to yellowish with a brownish wash on the flanks.

- **SONG** Twittering musical trill similar to Chipping Sparrow but varying in speed, loudness, and pitch. Call is slurred *tsup*.
- **BEHAVIOR** Solitary or in pairs. Very vocal. Gregarious in winter; often joins mixed feeding flocks. Gleans food by creeping slowly and deliberately along branches, usually high in trees, but sometimes lower, even on ground. Often flies from tree to tree, diving for passing insects. Eats insects, caterpillars, and spiders. Also eats seeds, wild grapes, and some berries. Aggressive toward other species sharing same pine habitat.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 10 days by both sexes. Young altricial; brooded by female; leave nest within 10 days, fed by both sexes. 2–3 broods per year in the South, 1 brood per year in the North.
- **POPULATION** Fairly common to common. Stable or increasing slightly, but some decline in coastal New England and Great Lakes region due to clearing of pines. Subject to loss in severe winters. Increases occur as pines mature. Casual in West.



Similar Birds

-  **YELLOW-THROATED VIREO**
Heavier hooked bill; yellow spectacles; white belly and flanks; no streaking on sides or breast; gray rump and crissum; no white in tail corners; sluggish.
 -  **BAY-BREASTED WARBLER**
 -  **BLACKPOLL WARBLER**
- Basic plumage • black streaking on back; much less white in tail corners; shorter tails with less extension from undertail coverts; paler cheeks contrast less with throat color.

Flight Pattern

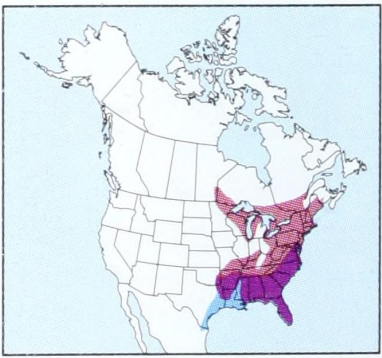


Weak flight, rapid wing beats alternated with brief period of wings pulled to sides. Sallies out to take flying insects, returns.

Nest Identification

Shape  Location 

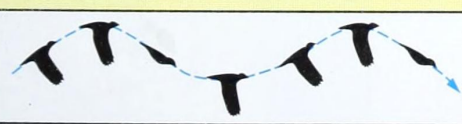
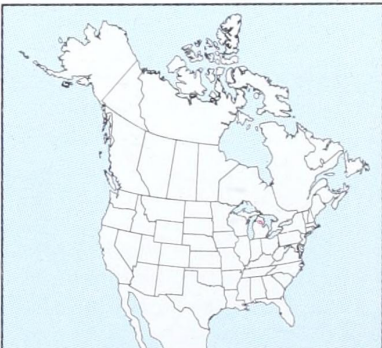
- **FEEDERS** Peanut butter and cornmeal mixture.
- **CONSERVATION** Neotropical migrant. Infrequent host to cowbird parasitism. Vulnerable to fragmentation and clearing of pine forests.



Lined with feathers, weeds, grass, bark, pine needles, twigs, and spider webs • built on or near end of limb, 10–135 feet above ground • built by female • 3–5 off-white eggs, with brown specks near larger end; oval to short oval, 0.7 x 0.5 inches.

Plumage Sexes similar	Habitat 	Migration Northern birds migrate	Weight 0.4 ounce
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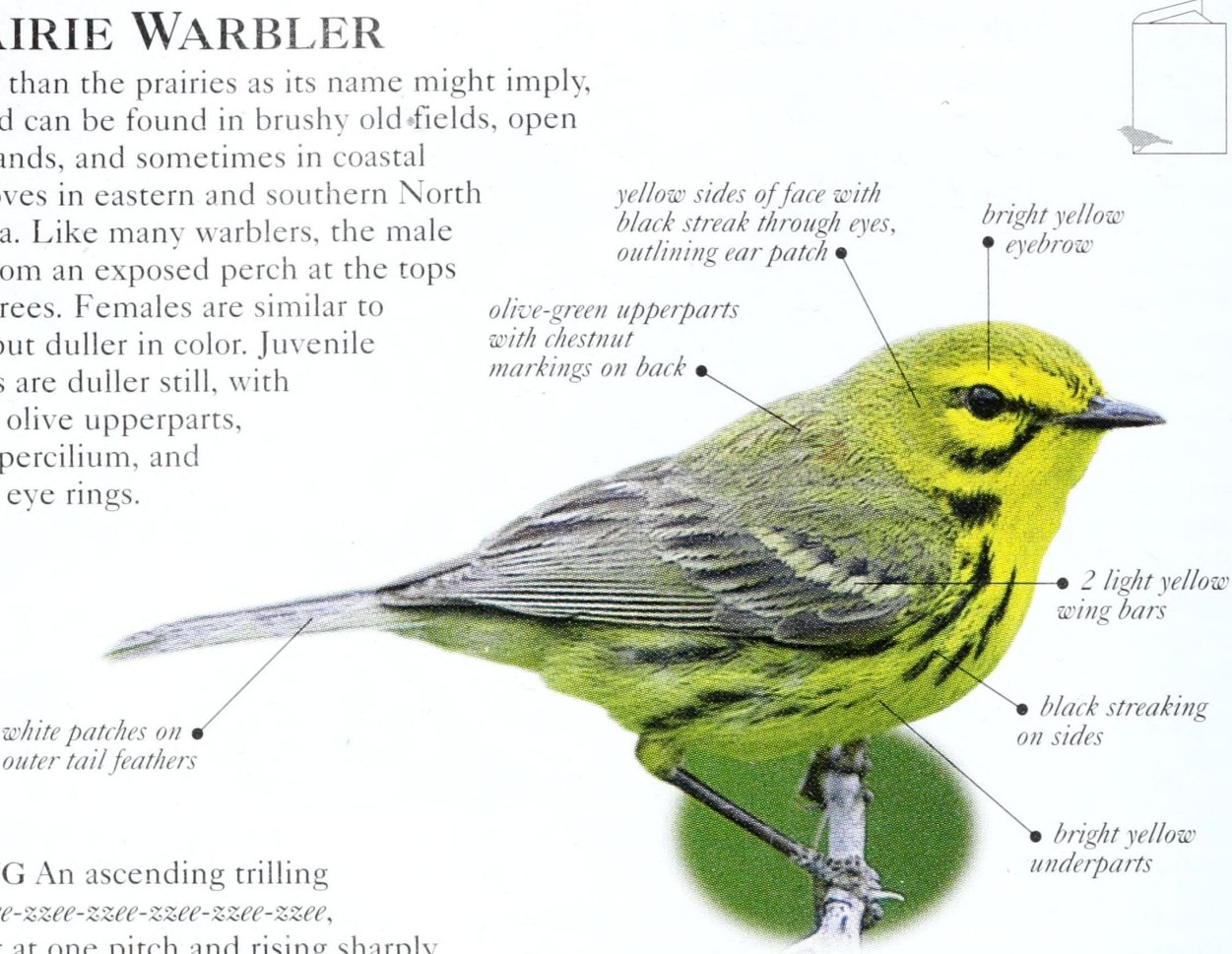
DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Dendroica kirtlandii</i>	Length 5.5 inches	Wingspan 8.5 inches
KIRTLAND'S WARBLER One of the rarest warblers, this species nests only near brushy young jack pines in northern Michigan, principally the north-central part of the Lower Peninsula. In an effort to increase this bird's population, the US Forest Service in recent years has controlled planting and fires to produce the necessary habitat. Kirtland's is the only gray warbler with yellow underparts that constantly pumps its tail up and down, flashing white spots in the tail corners. Females are similar to males but lack the black lores and have duller coloring. • SONG Loud, bubbly, and low-pitched. A bold vibrant melody of notes, varying in range; <i>chip-chip-che-way-o</i> is one rendition of the song. Male sings constantly, with more than 2,000 songs given by one individual male in a day. Call is low strong <i>chip</i>. • BEHAVIOR Solitary or in pairs. Males on territory much more conspicuous than females; both sexes inconspicuous in migration. Tame. Forages with slow deliberate movements on ground and high in trees. Eats mostly insects and caterpillars; also takes tree sap and berries. Restricted to young jack pines 3–15 feet tall and 5–15 years old, with lower branches overlapping adjacent trees and brushy ground cover. • BREEDING Monogamous. Solitary nester. • NESTING Incubation 13–15 days, longest of North American warblers. Male feeds incubating female. Altricial young brooded by female; leave nest at 9–13 days but have weak flight, so both sexes feed for 42 more days. 1 brood per year, rarely 2. • POPULATION Fairly common but very local. Rare in migration; winters only in Bahama Islands. Estimated at 1,600 in 1998, up from low of 167 breeding males in 1987. • CONSERVATION Endangered due to habitat loss and cowbird parasitism. Neotropical migrant. Planting of pine plantations, controlled burning, and annual trapping of several thousand cowbirds have contributed to increase. Many wear leg bands due to conservation and research efforts.  JUVENILE FEMALE Flight Pattern  Moderately fast flight with quick wing strokes, alternating with brief periods of wings pulled to sides; repeated. Nest Identification Shape  Location  Plumage Sexes similar Habitat  Migration Migratory Weight 0.5 ounce Similar Birds  MAGNOLIA WARBLER ♀ Spring female • gray head; complete white eye ring; faint whitish supercilium; streaked olive back; yellow-green rump; bold white wing bars; black streaking on sides and some on breast; white-based black tail from below; does not pump tail. 			

Family PARULIDAE	Species <i>Dendroica discolor</i>	Length 4.75 inches	Wingspan 7.5 inches
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PRAIRIE WARBLER

Rather than the prairies as its name might imply, this bird can be found in brushy old fields, open pine stands, and sometimes in coastal mangroves in eastern and southern North America. Like many warblers, the male sings from an exposed perch at the tops of tall trees. Females are similar to males but duller in color. Juvenile females are duller still, with grayish olive upperparts, pale supercilium, and broken eye rings.



- **SONG** An ascending trilling *zzel-zzel-zzel-zzel-zzel-zzel-zzel*, starting at one pitch and rising sharply over the last half of song. Call note is a rich smacking *tchick*.
- **BEHAVIOR** Solitary or in pairs. Joins mixed feeding flocks after breeding season. Tame. Active and restless. Constantly pumps or wags tail while feeding. Forages in low branches of trees and bushes and sometimes on ground. Catches some insects in flight but primarily gleans from foliage; sometimes hover-gleans. Eats mostly insects and spiders.
- **BREEDING** Monogamous; some males polygynous in midnesting season. Solitary nester.
- **NESTING** Incubation 11–14 days by female. Young altricial; brooded by female; stay in nest 8–11 days, fed by both sexes. Both sexes tend for additional 40–50 days. 2 broods per year.

Flight Pattern

Fairly fast flight with rapidly beating wings, alternating with brief periods of wings pulled to sides. May sally forth and take insects in flight.

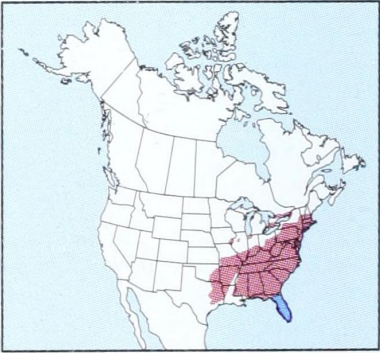
Nest Identification

Shape Location

- **POPULATION** Common but is declining.
- **CONSERVATION** Neotropical migrant. Frequently host to cowbird parasitism. Vulnerable to habitat loss that occurs with maturation of forests.

Similar Birds

PINE WARBLER
Yellow-green face; indistinct yellowish eye ring and supercilium; olive-green back without streaking; yellowish underparts with indistinct dusky streaking; extensive white tail spots; bobs tail but not as strongly.



Grasses, stems, bark pieces, plant down, and leaves, bound with spider's silk and lined with feathers and mammal hair • hidden in tree or bush, usually 10–15 feet above ground (but ranges from 1–45 feet) • built by female • 4–5 white, creamy white, or greenish white eggs, with fine and large dots of brown, concentrated on larger end; oval to short oval, 0.6 x 0.48 inches.

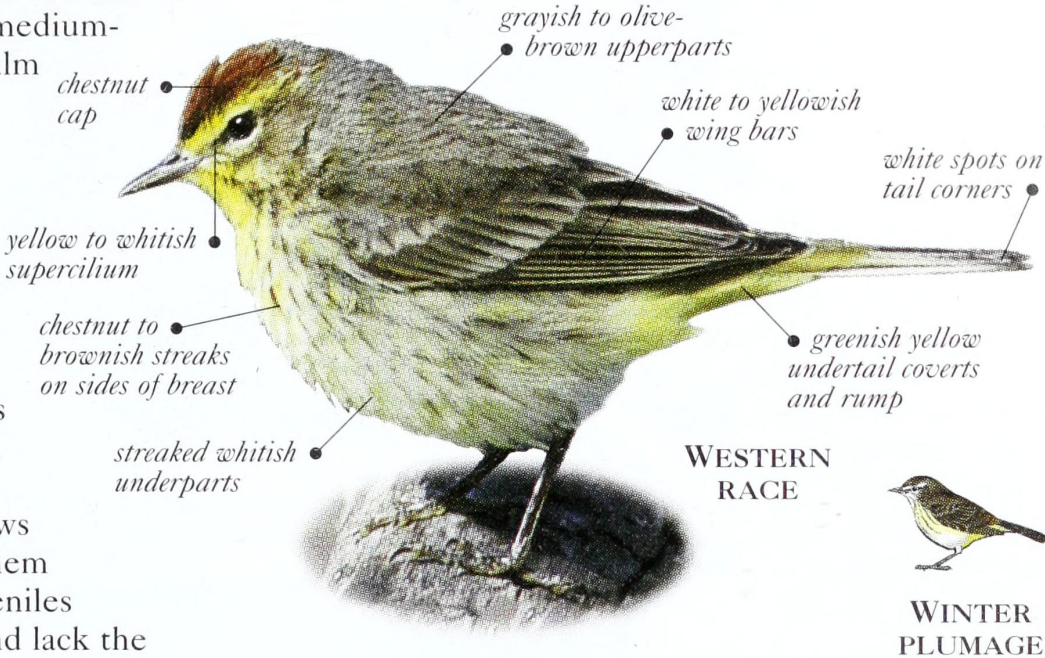
Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.3 ounce
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DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Dendroica palmarum</i>	Length 5.25 inches	Wingspan 8.5 inches
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PALM WARBLER

This inhabitant of northern bogs pumps its tail up and down more than any other warbler. Two subspecies occur: the eastern form with strongly washed yellow underparts and the western form with whitish underparts with stronger streaking. Both nest on knolls of moss at the foot of small spruce or pine trees. A medium-distance migrant, the Palm Warbler winters in the South and frequents open habitats such as cultivated fields, marshes, pastures, parks, and gardens. Some winter in open pine woods or along their edges. The species is associated with palms only on some of its wintering areas and shows no inclination to seek them out. Fall adults and juveniles are drab, washed out, and lack the chestnut cap.



- **SONG** Monotone buzzlike fast trill, often stronger in middle, *zwee-zwee-zwee-zwee-zwee-zwee*. Call is forceful slurred *tsik*.
- **BEHAVIOR** Solitary or in pairs. Gregarious after breeding season, forming flocks and often mixing in foraging flocks with other species. Terrestrial; searches for food on ground or along beaches during migration, particularly among twigs and cones from conifers. Also foliage-gleans and hover-gleans in shrubs and trees; sometimes hawks prey in flight. Eats insects and caterpillars, also bayberries and raspberries.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 12 days by both sexes. Young altricial; brooded by female; stay in nest 12 days, fed by both sexes. 2 broods per year.
- **POPULATION** Fairly common to common. Stable with some decline noted in wintering numbers in Florida.

Flight Pattern

Weak flight; rapid wing beats alternate with brief periods of wings pulled to sides. Sallies from perch to take insects in air.

Nest Identification

Shape Location

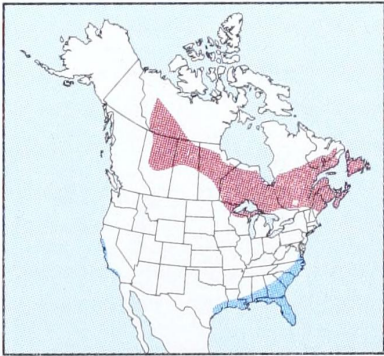
- **CONSERVATION** Neotropical migrant. Rare cowbird host; buries eggs of parasite in floor of nest. Vulnerable to loss of habitat due to forest fragmentation.

Grass and shredded bark, lined with feathers • built on or near ground or up to 4 feet above ground in coniferous tree • built by female • 4–5 white to creamy eggs, with brown markings; ovate, short ovate, or elongated ovate, 0.7 x 0.5 inches.

Similar Birds

CAPE MAY WARBLER ♀
Pale lemon supercilium; white undertail coverts; does not wag short tail.

YELLOW-RUMPED WARBLER
Myrtle form, basic plumage • brown to gray upperparts with black streaking on back; white supercilium; bright yellow rump; streaked underparts; does not pump tail.



Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.4 ounce
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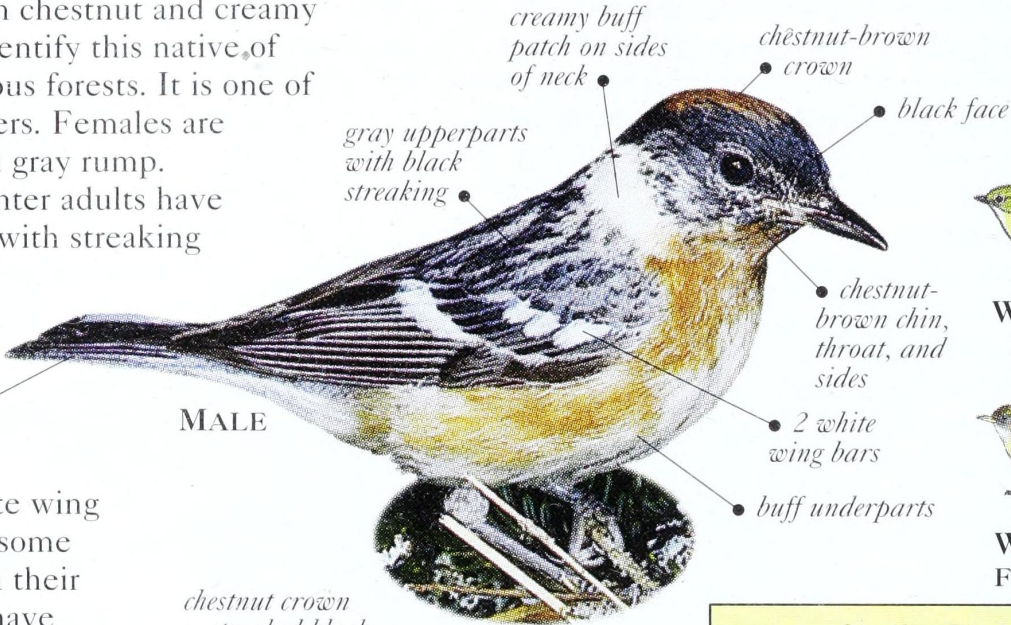
DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Dendroica castanea</i>	Length 5.5 inches	Wingspan 8.5 inches
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BAY-BREASTED WARBLER

The male's warm chestnut and creamy markings help identify this native of northern coniferous forests. It is one of the largest warblers. Females are duller and have a gray rump. Juveniles and winter adults have olive upperparts with streaking

MALE



WINTER MALE



WINTER FEMALE

on the back, white wing bars, often show some chestnut wash on their underparts, and have a buffy crissum.

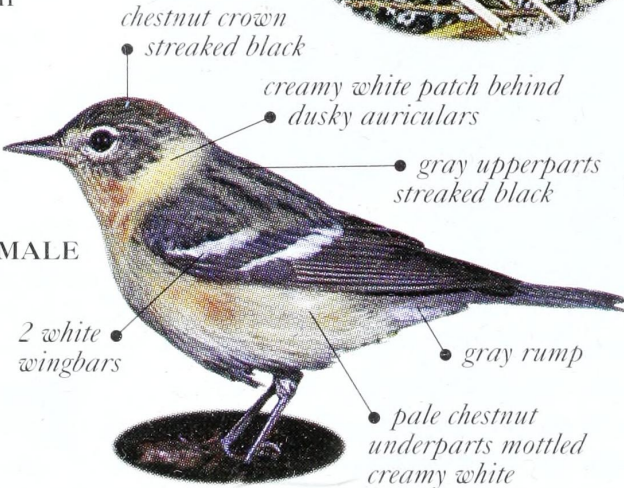
- **SONG** High thin double-syllabled notes in series of 3–10 *tees teesi* *teesi teesi teesi teesi*. Call is thin high-pitched *tseet* and loud slurred *chip*.

• **BEHAVIOR**

Solitary or in pairs. Gregarious in migration and winter. Gleans from branches, twigs, and foliage, often at mid level. In migration and winter forages lower. Eats insects, larvae, and fruit. Attracted to areas with spruce budworm outbreaks. Wags tail slightly as it forages.

- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 12–13 days by female. Young altricial; brooded by female; leave nest at 10–12 days, fed by both sexes. 1 brood per year.

FEMALE



Similar Birds



BLACKPOLL WARBLER
Winter adults and fall juveniles have yellow to yellow-olive wash on sides and flanks; sides of breast and flanks are streaked; duller green upperparts; white undertail coverts; more distinct eye line; yellow toes and soles of feet • adults have yellow feet and pinkish legs.



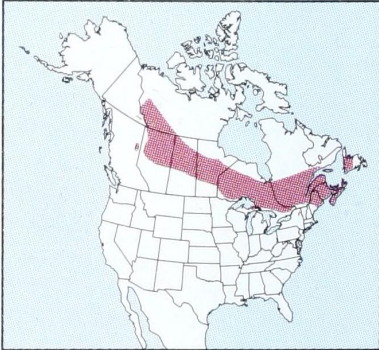
PINE WARBLER
Winter adults and fall juveniles have longer tail; lacks white tips to tertials and primaries; unstreaked olive to olive-brown back; olive cheek patch contrasts with paler throat; more elongated tail spots.

Flight Pattern



Relatively weak flight with rapid wing strokes alternating briefly with wings pulled to sides.

- **POPULATION** Abundant to common in boreal coniferous forests and adjoining deciduous second growth.
- **CONSERVATION** Neotropical migrant. Rare cowbird host. Vulnerable to habitat loss due to logging.



Nest Identification

Shape Location

Sticks, grasses, roots, mosses, and stems, lined with pieces of bark and rabbit hair • on branch of tree or bush, 4–40 feet above ground • built by female • 4–6 white, greenish white, or bluish white eggs, with lavender or brown splotches at larger end; varying from ovate to elongate ovate, 0.7 x 0.5 inches.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.5 ounce
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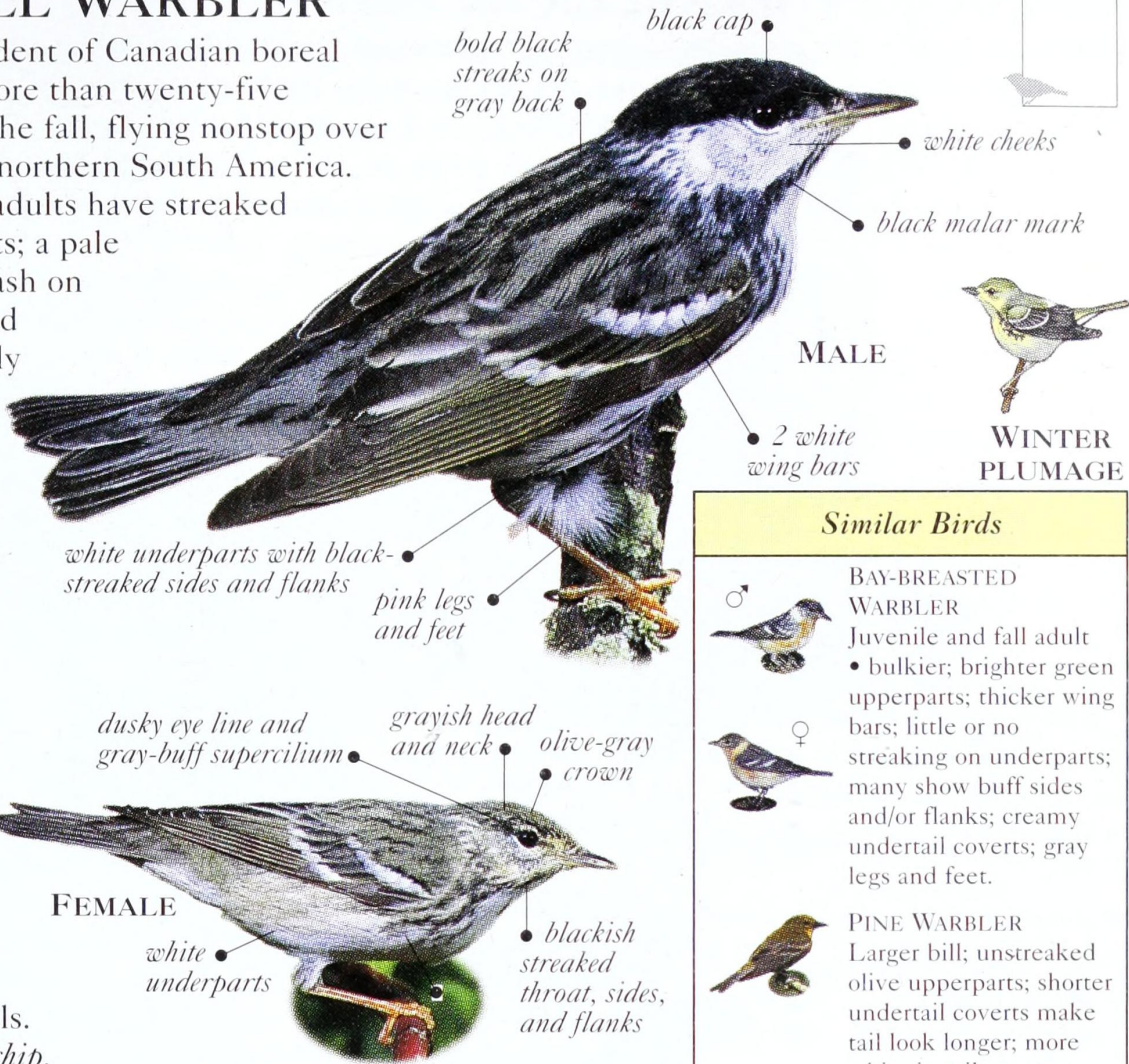
Family PARULIDAE	Species <i>Dendroica striata</i>	Length 5.25 inches	Wingspan 8.5 inches
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BLACKPOLL WARBLER

This summer resident of Canadian boreal forests migrates more than twenty-five hundred miles in the fall, flying nonstop over water to winter in northern South America. Juveniles and fall adults have streaked greenish upperparts; a pale greenish yellow wash on the face, throat, and breast; a white belly and crissum; legs that are pale pinkish on the front and back but dark on the sides; and yellow soles.

• **SONG**
Mechanical series of high thin *tseet* notes that begin softly and get louder and more intense; may contain 10–20 notes. Much variation between individuals. Call is sharp loud *chip*.

- **BEHAVIOR** Solitary or in pairs. Sluggish and deliberate. Forages low to high in migration, but stays in middle to upper levels on breeding grounds. Catches insects in air or combs leaves and twigs for food. Eats insects, caterpillars, cankerworms, spiders and their eggs, and pokeberries.
- **BREEDING** Monogamous. Polygynous. Females breed with the territory-holding male on the previous year's nesting site.
- **NESTING** Incubation 12 days by female. Altricial young brooded by female; stay in nest 11–12 days, fed by both sexes. 1–2 broods per year.



Similar Birds



BAY-BREASTED WARBLER
Juvenile and fall adult • bulkier; brighter green upperparts; thicker wing bars; little or no streaking on underparts; many show buff sides and/or flanks; creamy undertail coverts; gray legs and feet.





PINE WARBLER
Larger bill; unstreaked olive upperparts; shorter undertail coverts make tail look longer; more white in tail corners; brown legs and feet.



BLACK-AND-WHITE WARBLER
Black-and-white-striped crown; black back with white stripes; black spotting and streaking on undertail coverts; black legs and feet • male has black throat and cheeks.

Flight Pattern

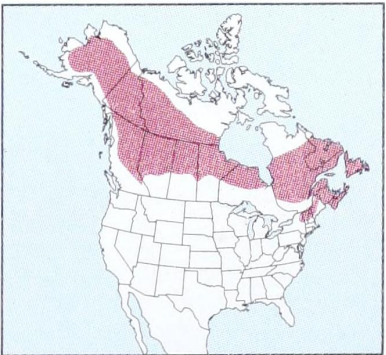


Fairly swift direct flight on rapidly beating wings.

Nest Identification

Shape  Location 

- **POPULATION** Abundant in northern boreal coniferous forests. May be declining in southern part of breeding range.
- **CONSERVATION** Neotropical migrant. Vulnerable to habitat loss from logging and forest fragmentation.



Lined with spruce sprigs, twigs, bark, dried grass, feathers, weeds, moss, and lichen • on branch near trunk, 2–33 feet above ground • built by female • 3–5 white to off-white eggs, with brown or lavender markings, occasionally wreathed; oval to long oval, 0.72 x 0.53 inches.

Plumage Sexes differ	Habitat  	Migration Migratory	Weight 0.5 ounce
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DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Dendroica cerulea</i>	Length 4.5 inches	Wingspan 7.25 inches
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CERULEAN WARBLER

Although its buzzy song can be heard from dawn until dusk, this bird, one of the smallest warblers, is difficult to spot, as it stays hidden in dense foliage in the crowns of tall deciduous trees. This habit of remaining high in mature trees has made studies of its natural history difficult, and its breeding biology and feeding habits are poorly known. Juveniles are similar to females.

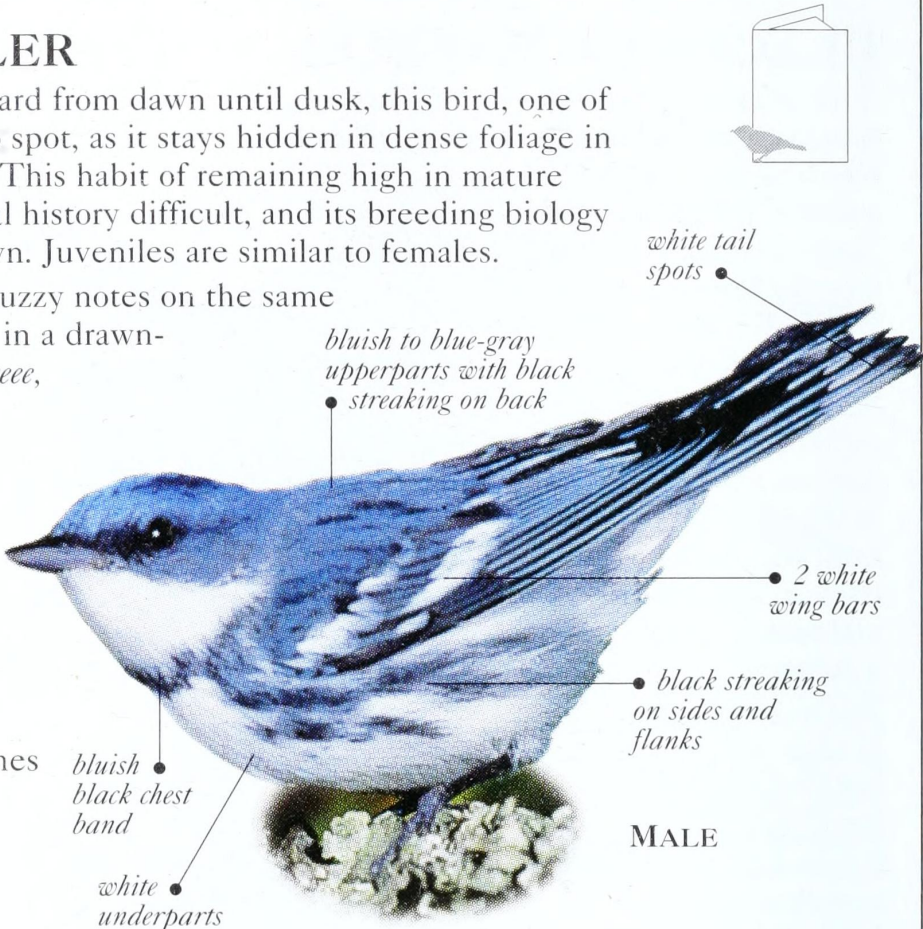
• **SONG** A series of accelerating buzzy notes on the same or slightly ascending pitch, ending in a drawn-out buzz, *zray, zray, zray, zray, zeeeeeee*, reminiscent of the slower second song of the Northern Parula. Call is a slurred *chip*.

• **BEHAVIOR** Solitary or in pairs. Vigorous and persistent singer on breeding grounds. Eats mainly insects, larvae, and spiders. Very active and acrobatic forager but sometimes moves sluggishly, gleaning food off leaves and branches while staying hidden in trees. Also catches insects in flight.

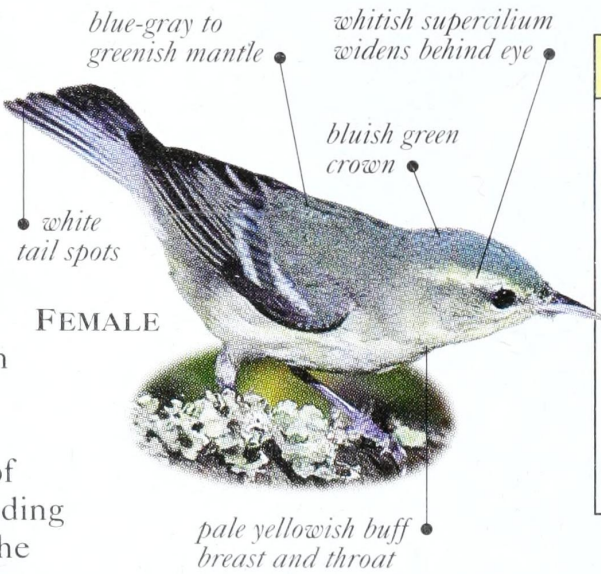
• **BREEDING** Monogamous. Solitary nester.

• **NESTING** Incubation about 12–13 days by female. Altricial young brooded by female; stay in nest estimated 8–10 days, fed by both sexes. 1–2 broods per year.

• **POPULATION** Fairly common to uncommon in mature deciduous forest. Declining dramatically, particularly in the heart of range, but range is expanding north and northeast, on the



MALE



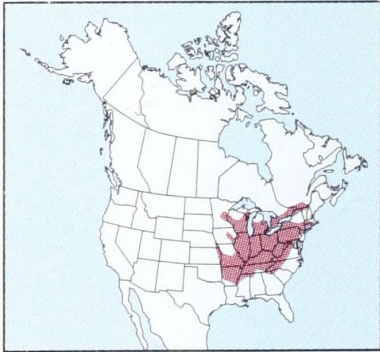
FEMALE

Similar Birds

The small and short-tailed male is the only warbler with a blue back, black necklace, and white throat.



BLACKBURNIAN WARBLER
Female and juvenile
• pale orange supercilium broadens behind eye; white or buff underparts; longer tail; triangular cheek patch; pale lines and dark streaking on back.



Flight Pattern	
Relatively weak flight with quick wing strokes alternating with brief periods of wings pull to sides; repeated.	
Nest Identification	
Shape	Location

Atlantic coastal plain, and the Piedmont.
• **CONSERVATION** Neotropical migrant. Moderate host to cowbird parasitism. Vulnerable to habitat loss and forest fragmentation.

Stems, grasses, mosses, bark pieces, and spider's silk, with lining of mammal hair and mosses • far out on branch of tree, usually 30–60 feet above ground • built by female • 3–5 grayish or creamy white eggs, with fine dots or splotches of brown, usually loosely wreathed; oval to short oval, 0.7 x 0.5 inches.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.3 ounce
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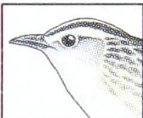
DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Mniotilta varia</i>	Length 5 inches	Wingspan 8.5–9 inches
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BLACK-AND-WHITE WARBLER

This mostly black-and-white striped bird feeds nuthatch-style, moving up and down the trunks of trees and crawling over and under branches, a foraging behavior unlike any other warbler. It is one of the earliest warblers to return to the breeding grounds in early spring, because its bark-gleaning foraging habit does not require it to linger on wintering grounds until the leaves begin to develop. Females are similar to males but have cream-colored flanks and creamy whitish rather than black cheeks. Juveniles are similar to females.

- **SONG** Repetitive thin high-pitched series of 6–10 *wee-sea, wee-sea* notes like the sound of a turning squeaky wheel. Sometimes a trill is added as an ending to the cadence. Has call of an abrasive *chip* or *tink*, and a *seap*.
- **BEHAVIOR** Solitary or in pairs. Probes into bark crevices with long bill; does not prop body on tree with tail as do woodpeckers and creepers. Eats adult insects, caterpillars, and spiders. Occasionally hawks and hover-gleans. If flushed from ground nest, female performs distraction display, dragging wings with tail spread.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 10–12 days by female. Young altricial; brooded by female; remain in nest 8–12 days but still not able to fly well; fed by both sexes. 1–2 broods per year.
- **POPULATION** Widespread in mature and second-growth deciduous or mixed deciduous-conifer woodlands with large trees. Declining in the Midwest and Great Lakes region because of habitat loss and cowbird parasitism. Vagrant in the West during migration as far north as Alaska.



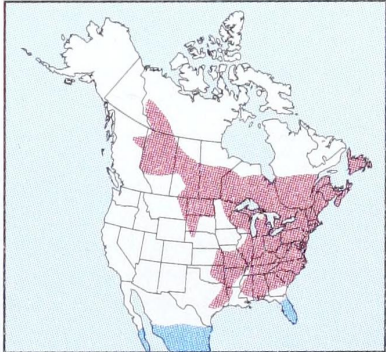
JUVENILE

Similar Birds

- 

BLACK-THROATED GRAY WARBLER
Small yellow spot between eye and bill; blackish crown; gray back with black streaking; white undertail coverts; lacks central crown stripe.
- 

BLACKPOLL WARBLER ♂
Black crown; white cheeks; gray back with black streaking; white throat; white undertail coverts.



• **CONSERVATION** Neotropical migrant. Common host to cowbird eggs. Vulnerable to forest fragmentation and habitat loss due to logging operations in mature forests.

Flight Pattern



Relatively weak flight with rapid wing strokes alternating with brief periods of wings pulled to sides; repeated.

Nest Identification

Shape  Location 

Grasses, bark pieces, dead leaves, rootlets, and pine needles, lined with moss and mammal hair • on ground, near base of tree or bush, or in small hollow of rock, stump, or log • built by female • 4–6 creamy white or white eggs, flecked with brown; short subelliptical to subelliptical, 0.67 x 0.52 inches.

Plumage Sexes similar	Habitat 	Migration Migratory	Weight 0.4 ounce
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DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Setophaga ruticilla</i>	Length 5 inches	Wingspan 8 inches
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AMERICAN REDSTART

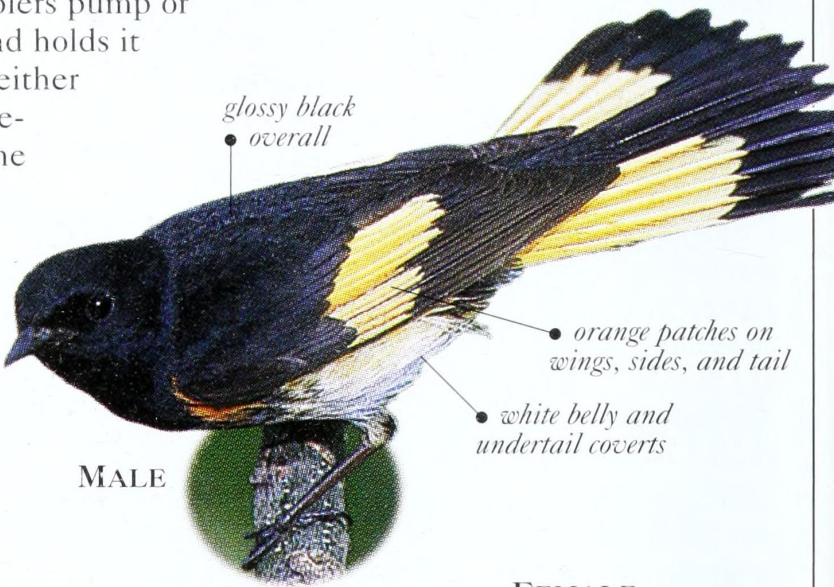
Birders enjoy watching this vivacious bird as it flits to catch insects or sits on a perch, partially spreading and drooping its wings and spreading its tail. Other warblers pump or flick their tails, but this bird fans its tail and holds it there for a second. The male's tail can be either orange and black or yellow and dusky olive-gray. This woodland inhabitant is one of the most common warblers nesting in North America. Juvenile males look like females but with an orange wash on the sides.

- **SONG** Variable. Sings often and through the heat of midday. Basic song is 4–8 high-pitched, somewhat coarse notes, with explosive accented lower-ending *zeet-zeet-zeet-zeet-zeeeah*. Other songs have unaccented ending. Some are reminiscent of the Yellow, Chestnut-sided, and Black-and-white Warblers. Territorial males have repertoire of several songs. Call is slurred thin *chip*.

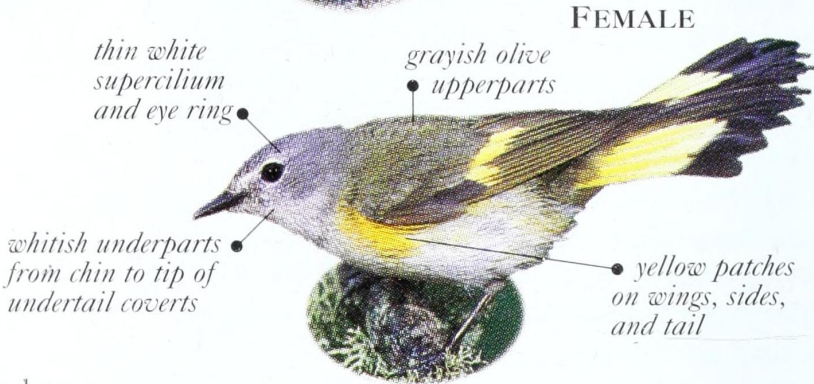
- **BEHAVIOR** Solitary or in pairs. Tame. Conspicuous. Sings often. Responds to squeaking or pishing by birders. Sallies into air to catch insects, perching between hawking events like a small flycatcher. Gleans food from branches and foliage; hover-gleans. Eats insects, caterpillars, spiders, berries, fruit, and seeds.

- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 11–12 days by female. Altricial young brooded by female; stay in nest 9 days, fed by both sexes. 1–2 broods per year.
- **POPULATION** Common to fairly common in wet deciduous and mixed conifer-deciduous woodlands with understory, woodland edges, riparian woodlands, and second growth. Widespread but declining in the Midwest, Great Lakes, the Northeast, and the Maritime Provinces. Rare to uncommon migrant in the West to California.

- **CONSERVATION** Neotropical migrant. Common cowbird host. Vulnerable to habitat loss caused by deforestation or maturation of second-growth forests.



MALE



FEMALE



FIRST SPRING MALE

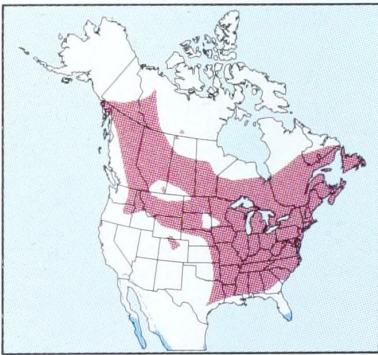
Flight Pattern	
Somewhat weak flight on rapidly beating wings, alternating with brief periods of wings pulled to sides. Flies into air from perch to take flying insects, and returns.	

Nest Identification	
Shape	Location

Grasses, pieces of bark, rootlets, and plant down, decorated with lichens, birch bark, and spider's silk, and lined with feathers • in fork of tree or bush, usually 10–20 feet above ground (but ranges from 4–70 feet) • built by female • 2–5 off-white, greenish white, or white eggs, flecked and dotted with browns or grays; ovate, occasionally short ovate, 0.63 x 0.48 inches.

Similar Birds

None in range.



Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.3 ounce
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DATE _____ TIME _____ LOCATION _____

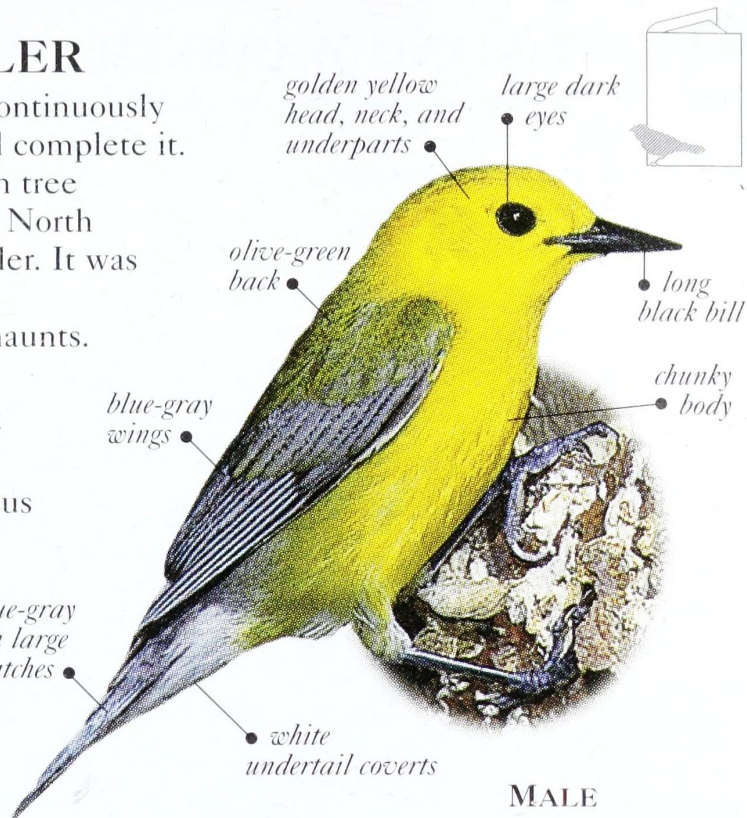
Family PARULIDAE	Species <i>Protonotaria citrea</i>	Length 5.25 inches	Wingspan 8.5 inches
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PROTHONOTARY WARBLER

The male builds several nests, then sings continuously until the female arrives to choose a nest and complete it. This is the only eastern warbler that nests in tree hollows, a trait it shares with only one other North American warbler, the western Lucy's Warbler. It was once called the "Golden Swamp Warbler," describing the bird and its dark backwater haunts.

- **SONG** A bold ringing repetitive *zweet*, slightly up-slurred as *sweet, sweet, sweet, sweet*. Call is loud *chip-chip*.
- **BEHAVIOR** Solitary or in pairs. Gregarious in winter, roosting communally. Tame, noisy, and conspicuous. Deliberate in its feeding, gleaning food and probing crevices with its bill. Picks food off floating logs and branches and out of water. Also forages in trees while grasping trunk like a nuthatch. Eats insects, spiders, larvae, and seeds. Takes small crustaceans and snails. Inquisitive; will come to squeaking and pishing by birders.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 12–14 days by female. Altricial young brooded by female, fed by both sexes; first flight at 11 days. 2 broods per year in the South.
- **POPULATION** Fairly common in swampy lowland forest, river-bottom woodlands subject to flooding, and riparian corridors along streams. Accidental to rare in the West.
- **BIRDHOUSES** Nest boxes.

- **CONSERVATION** Neotropical migrant. Common cowbird host. Destruction of mangrove swamps and wetland drainage reduce populations. Competition from other cavity nesters that destroy eggs or usurp cavities.

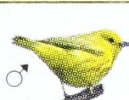


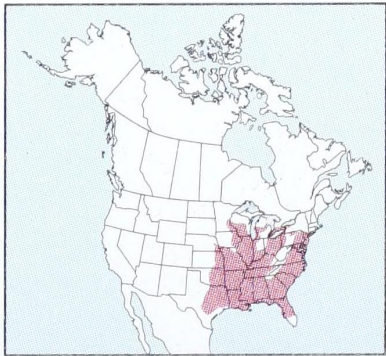
MALE



FEMALE

Similar Birds

-  **YELLOW WARBLER**
Bright yellow underparts; orange-yellow forehead and front of crown; reddish streaking on underparts; yellow-olive wings; yellow spots in tail
• appears completely yellow from a distance.
-  **BLUE-WINGED WARBLER**
Blue-gray wings with two white wing bars; black eye line; shorter bill; yellow head and underparts; olive back; no white spots in tail.



Flight Pattern



Rapid direct flight, often low over water, on quickly beating wings.

Nest Identification

Shape 

Location 

Grasses, moss, leaves, and sticks, lined with feathers and rootlets • in natural hollow or woodpecker cavity in snag, tree, post, or nest box, near water and usually 5–10 feet above ground (but range from 2–32 feet) • male builds dummy nests; female selects and completes one • 4–6 pinkish or cream eggs, with brown and gray dots; short elliptical to elliptical, 0.8 x 0.57 inches.

Plumage Sexes differ	Habitat 	Migration Migratory	Weight 0.5 ounce
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DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Helmitheros vermivorus</i>	Length 5.25 inches	Wingspan 8.5 inches
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WORM-EATING WARBLER

Similar to a sparrow in color, size, and habits, the Worm-eating Warbler's steady diet of moth caterpillars and worms has earned this bird its name. An inhabitant of deciduous forests, it seldom is observed combing the forest floor for food; rather, it usually forages in the understory vegetation, where it often probes for food in clusters of dead leaves. While primarily a solitary bird, the Worm-eating Warbler sometimes is known to associate loosely with foraging flocks of mixed bird species.

• **SONG** A buzzy insectlike fricative trill, often beginning softly and fading away at the end with a series of *chip* notes. Song is similar to the Chipping Sparrow's but more rapid and given in a thick shaded wooded habitat. Call is a *zit-zit*.

• **BEHAVIOR** Solitary or in pairs. More often heard than seen in the breeding season. Most often observed foraging alone for insects, spiders, and some worms. Gleans food by moving along branches like a Black-and-white Warbler, but specializes in probing clusters of dead leaves for food. Usually forages in low to middle levels, but sometimes in treetops; rarely in leaf litter on ground. Frequents deciduous woodlots on slopes, along ravines, or mountain sides. When flushed from nest, female drags wings and spreads tail, running on ground in distraction display. Mixed flocks postbreeding season.

• **BREEDING** Monogamous. Solitary.

• **NESTING** Incubation 13 days by female. Young altricial; brooded by female; stay in nest 10 days, fed by both sexes. 1–2 broods per year.

• **POPULATION** Fairly common to common in ravines, hillsides, and mountainsides in thick deciduous woodlands. Stable in most of its range but regional declines noted. Casual to

rare vagrant in migration in the West to California.

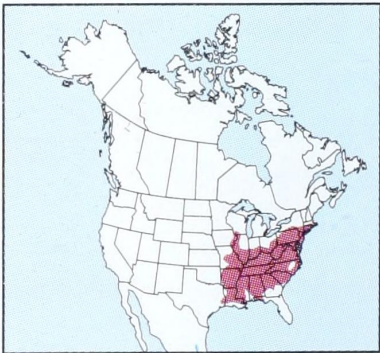
• **CONSERVATION** Neotropical migrant. Frequent host to cowbird parasitism. Vulnerable to habitat loss due to forest fragmentation.



Similar Birds



SWAINSON'S WARBLER
Larger; longer bill; browner upperparts; grayish buff underparts; brown cap without stripes; pale supercilium; thin dark eye line.



Flight Pattern	
	
Fairly fast direct flight on rapidly beating wings.	

Nest Identification	
Shape 	Location 

Lined with dead leaves, animal hair, fungus, moss, and tree stems • often built on sloping ground near base of deciduous shrubs or saplings or on ridges of leaves on forest floor • built by female • 4–6 white eggs, with brown spots or blotches, often wreathed; short ovate, 0.7 x 0.55 inches.

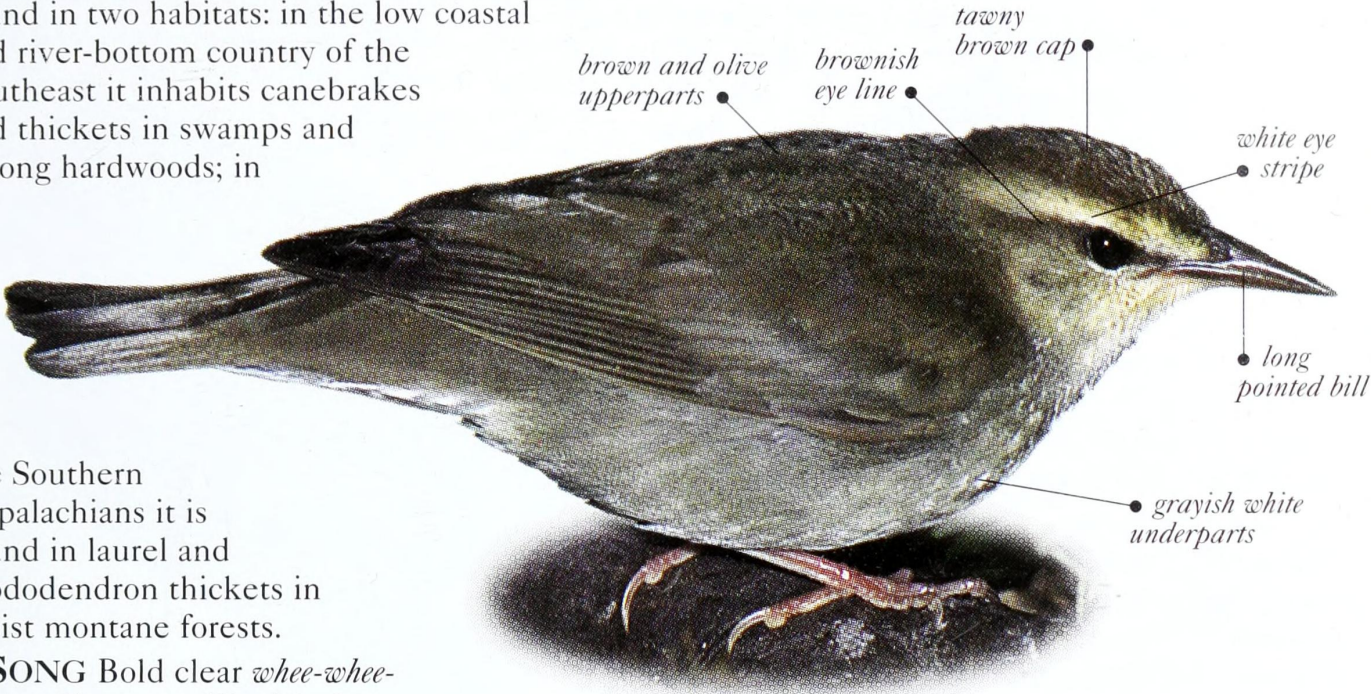
Plumage Sexes similar	Habitat 	Migration Migratory	Weight 0.7 ounce
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DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Limnothlypis swainsonii</i>	Length 5.25 inches	Wingspan 8.5 inches
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SWAINSON'S WARBLER

This recluse hides in dense thickets, except when the male perches to sing, which he does with his head thrown back and his bill lifted in the air. It is found in two habitats: in the low coastal and river-bottom country of the Southeast it inhabits canebrakes and thickets in swamps and among hardwoods; in



the Southern Appalachians it is found in laurel and rhododendron thickets in moist montane forests.

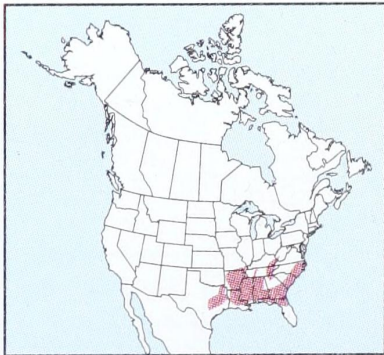
- **SONG** Bold clear *whee-whee-whee*, *whip-poor-will*, with the opening notes down-slurred and the last 3 clear and more rapid. Begins like that of the Louisiana Waterthrush but lacks sputtering downward trill at the end. Call is loud clear *chip*.
- **BEHAVIOR** Solitary or in pairs. Tame. Sings from concealed perch or from ground; voice has a ventriloquial quality. May sing continuously for 10–15 minutes, then be silent for an hour or more. Forages frequently on ground, walking slowly and turning over leaves with its bill or probing into leaves or ground for food. Eats insects, caterpillars, and spiders. A skulking bird in dense undergrowth, it is difficult to see. Sometimes detected by the noise it makes tossing leaves.
- **BREEDING** Monogamous. Solitary nester. Sometimes in loose colonies in prime lowland habitat.
- **NESTING** Incubation 13–15 days by female. Young altricial; brooded by female; stay in nest 10–12 days, fed by both sexes. 1–2 broods per year.
- **POPULATION** Uncommon in thickets in swamps, canebrakes, and moist woodlands.

Similar Birds



WORM-EATING WARBLER
Shorter bill; buff-colored head with 2 pairs of blackish stripes; brownish olive upperparts; buff-colored underparts.

- **CONSERVATION** Neotropical migrant. Increasing host to cowbird parasitism. Vulnerable to habitat loss as wetlands are drained and river-bottom forests are cleared for agricultural use.



Flight Pattern

Fairly swift short direct flights on rapidly beating wings.

Nest Identification

Shape

Location

Mass of leaves, pine needles, mammal hair, grasses, Spanish moss, and rootlets • in fork of bush or vines, 2–10 feet above ground • built by female • 2–5 white eggs, occasionally with brown speckles; elliptical, 0.76 x 0.59 inches • only North American warbler besides Bachman's to lay unmarked white eggs.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.7 ounce
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DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Seiurus aurocapillus</i>	Length 6 inches	Wingspan 9 inches
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OVENBIRD

In the leaf litter under tall deciduous trees, the female bird builds a small oven-shaped nest with a side entrance. Unlike many warblers, it does not often forage in live vegetation; instead it walks on the ground, foraging among the leaf litter and twigs, its wings partially drooped and its tail cocked upward and sometimes quickly raised and slowly lowered. It is sometimes called the Wood Wagtail because it moves its tail up and down. Most singing is done from an elevated perch, and the song of one territorial male initiates a response song from each neighbor, which in turn stimulates another to do so, until a wave of Ovenbird songs sweeps across the woodlot.

- **SONG** More often heard than seen. Sings a loud and repetitive *TEAcher-TEAcher-TEAcher*, rising and becoming more emphatic. There is regional variation, with some birds singing *teach-teach-teach-teACH!* From a distance the song sounds like two stones being tapped together harder and harder. Call note is a loud sharp *tsick*.
- **BEHAVIOR** Solitary or in pairs. Tame. Eats adult insects, caterpillars, snails, slugs, earthworms, small amphibians, seeds, berries, and fruit. When flushed, usually flies up to perch. Walks on limbs in interior of trees.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 11–14 days by female. Young altricial; brooded by female; remain in nest 8–11 days, fed by both sexes. 1–2 broods per year (occasionally 3 in regions with spruce budworm outbreaks).
- **POPULATION** Common to fairly common in mature deciduous forests; rarely in pine forests. Rare in the west of the Rockies in migration; rare to casual on southern Atlantic Coast and Gulf Coast in winter.
- **CONSERVATION** Neotropical migrant. Host to cowbird parasitism. Significant declines documented in the northeast beginning in the 1970s but now increasing in much of its range.

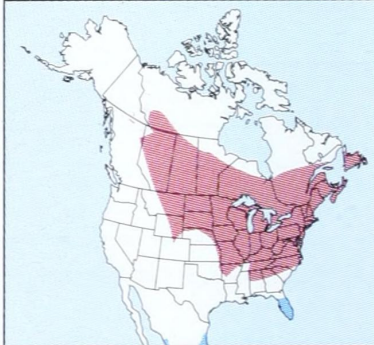
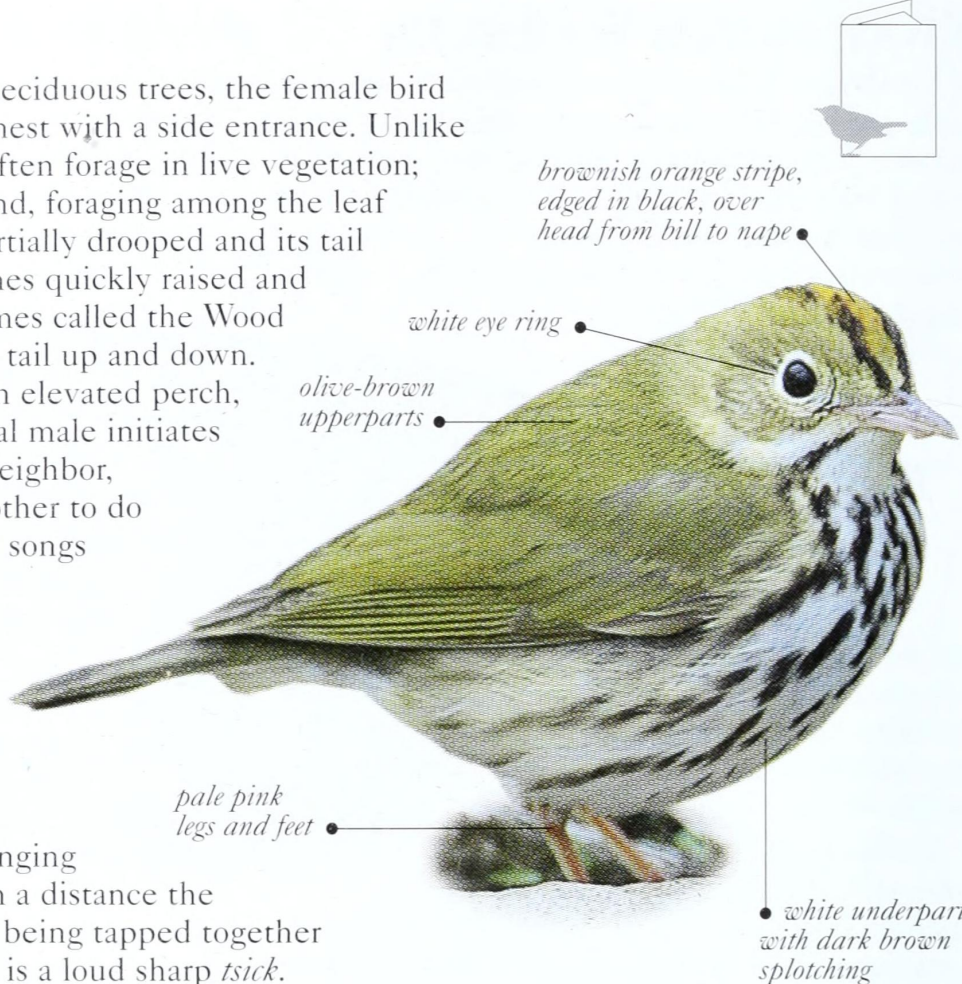
Flight Pattern



Relatively swift, short direct flight on rapidly beating wings.

Nest Identification

Shape 	Location 
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Similar Birds

	LOUISIANA WATERTHRUSH
	NORTHERN WATERTHRUSH
	White to yellowish supercilium; lack eye ring and black border to crown; brownish upperparts; usually near water; habitual tail bobbing.

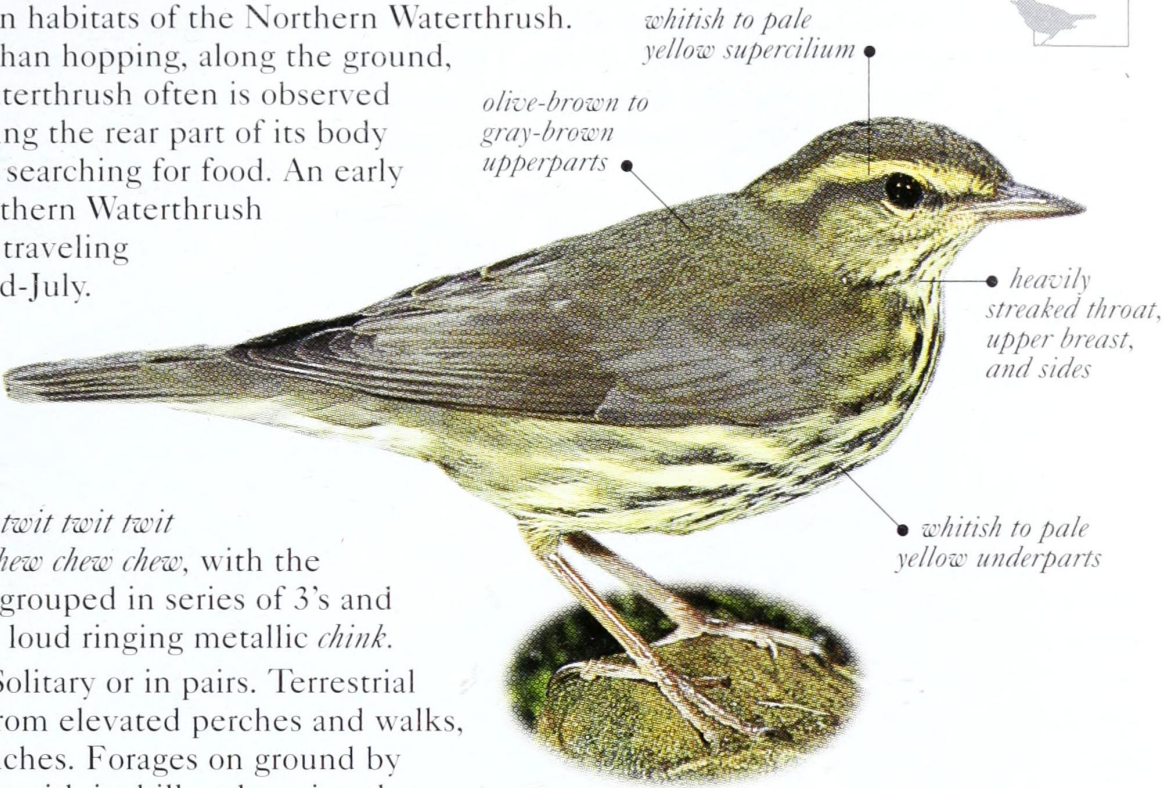
Plumage Sexes similar	Habitat  	Migration Migratory	Weight 0.7 ounce
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Family PARULIDAE	Species <i>Seiurus noveboracensis</i>	Length 5.75 inches	Wingspan 8.75 inches
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NORTHERN WATERTHRUSH

Northern lakeshores, slow-running streams, and bogs are the most common habitats of the Northern Waterthrush. Walking, rather than hopping, along the ground, the Northern Waterthrush often is observed repeatedly bobbing the rear part of its body and its tail while searching for food. An early migrant, the Northern Waterthrush generally begins traveling southward by mid-July.

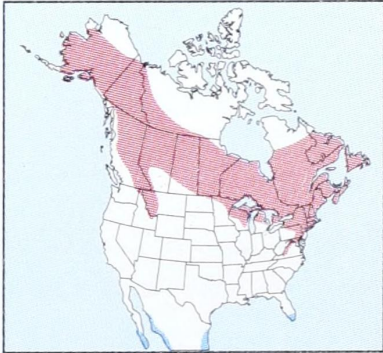
- **SONG** Begins with loud insistent notes, tapering to rapidly whistled lower tones, *twit twit twit twit sweet sweet sweet chew chew chew*, with the individual notes grouped in series of 3's and 4's. Call is a very loud ringing metallic *chink*.
- **BEHAVIOR** Solitary or in pairs. Terrestrial but often sings from elevated perches and walks, bobbing, on branches. Forages on ground by picking up leaves with its bill and tossing them aside or turning them over. Eats aquatic and terrestrial adult insects, caterpillars, and case worms; also sometimes slugs, mollusks, crustaceans, and small fish. Frequents areas with dense shrub and slowly moving or still water.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Breeding biology poorly known. Estimated incubation 13 days by female. Young altricial; brooded by female; stay in nest estimated 10 days, fed by both sexes. 1 brood per year.
- **POPULATION** Generally common in wooded swamps, forests with standing water, bogs, and thickets with slowly running or standing water. Rare to uncommon in migration in the Southwest to California. Rare to casual in winter in the US, except for southern Florida where it is uncommon.
- **CONSERVATION** Neotropical migrant. Uncommon host to cowbird parasitism. Some declines in southern portions of breeding range and increases in New England portions. Vulnerable to habitat loss due to deforestation and drainage.



Similar Birds



LOUISIANA WATERTHRUSH
Longer stouter bill; white supercilium broadens behind eye; fewer and less-contrasting streaks on underparts; unmarked white throat; contrasting pinkish buff wash on flanks; bright pink legs and feet; more deliberate and exaggerated tail bobbing with a circular body motion; song differs.



Flight Pattern



Fairly swift direct flight for short distances on rapidly beating wings.

Nest Identification

Shape 

Location 

Lined with grass, animal hair, moss, twigs, pine needles, bark strips, and roots • often built in moss-covered stumps near water • 0–2 feet above ground • built by female • 3–6 cream or buff-white eggs, with brown or gray spots or speckles; ovate to short ovate, 0.8 x 0.57 inches.

Plumage Sexes similar	Habitat 	Migration Migratory	Weight 0.8 ounce
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DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Seiurus motacilla</i>	Length 6 inches	Wingspan 9 inches
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LOUISIANA WATERTHRUSH

The less common of the two waterthrush species frequents fast-running streams and floodplain river swamps, where it hides its nests on streamside banks, under tree roots, or in rock crevices. This bird has a nesting range from Minnesota to New England and as far south as Texas and Georgia. In spring it is one of the earliest warblers to arrive on the nesting grounds and one of the first to depart in late summer and early fall.

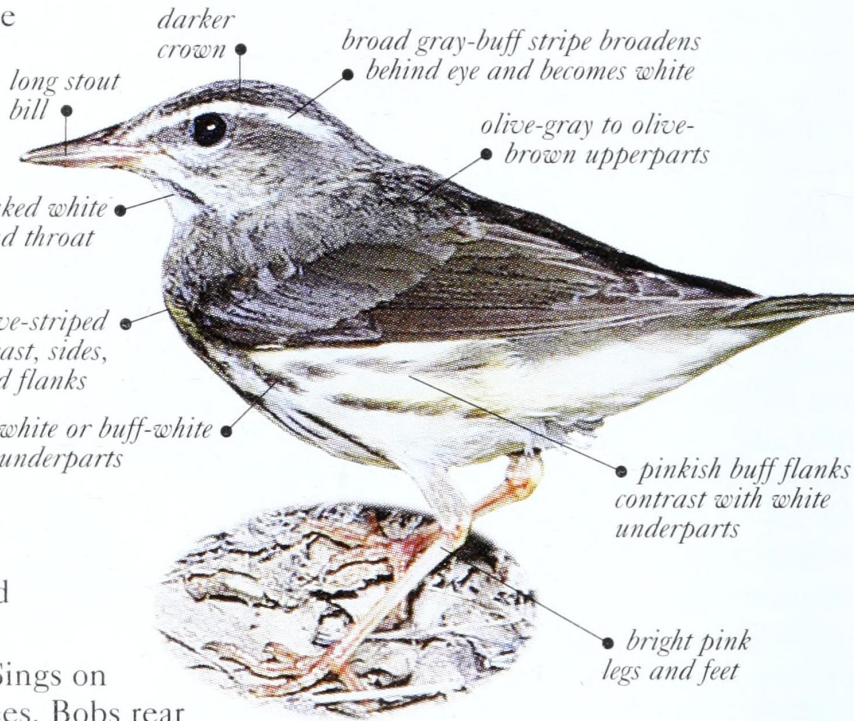
• **SONG** Loud and clear, beginning with 3–4 high-pitched downslurred notes, followed by a brief rapid medley of jumbled notes that cascade up and down prior to fading away, *SWEER SWEER SWEER* *chee chi-wit-it chit swee-yuu*. The combination of slurred opening notes and ending twittering is diagnostic. Call is a loud bright *chik*.

• **BEHAVIOR** Solitary or in pairs. Sings on ground or from elevated perch in trees. Bobs rear and tail while walking. Terrestrial, primarily foraging on ground, along stream banks, on rocks and logs in water, and in the stream shallows. Bobs up and down while foraging, much like a sandpiper, with a slow circular exaggerated motion. Dines on adult aquatic and terrestrial insects, caterpillars, mollusks, snails, and small fish. Territories are linear along stream.

• **BREEDING** Monogamous. Solitary.

• **NESTING** Incubation 12–14 days by female. Young altricial; brooded by female; remain in nest 9–10 days, fed by both sexes. 1 brood per year.

• **POPULATION** Uncommon to fairly common. Restricted habitat specialist along fast-flowing streams within woodlands, often in mountains or hilly terrain, or in floodplain forests and swamps in lower country. Casual in the West during the migration season.



Similar Birds



NORTHERN WATERTHRUSH
Narrow buff to white eye stripes of uniform color and width; smaller bill; streaked and spotted throat; pale yellow to white underparts with darker, more uniform streaking; olive-brown to gray-brown upperparts; dull pink legs and feet; different voice.

Flight Pattern

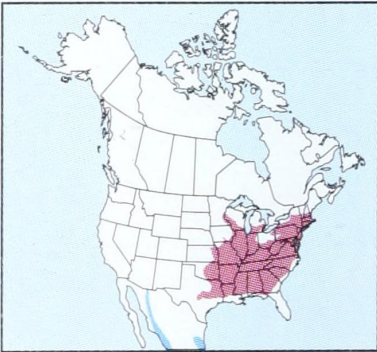
Swift short direct flights on rapidly beating wings.

Nest Identification

Shape

Location

• **CONSERVATION**
Neotropical migrant. Frequent host to cowbird parasitism. Deforestation and stream siltation negatively impact both breeding and wintering areas.



Lined with roots, fern stems, grass, animal fur, dead leaves, moss, and twigs • 0–2 feet above ground, on bank, rock crevice, or roots of tree, no further than 3–6 feet from water • built by both sexes, but female does more • 4–6 white or cream-colored eggs, with brown and gray specks or blotches; oval to short oval, 0.78 x 0.6 inches.

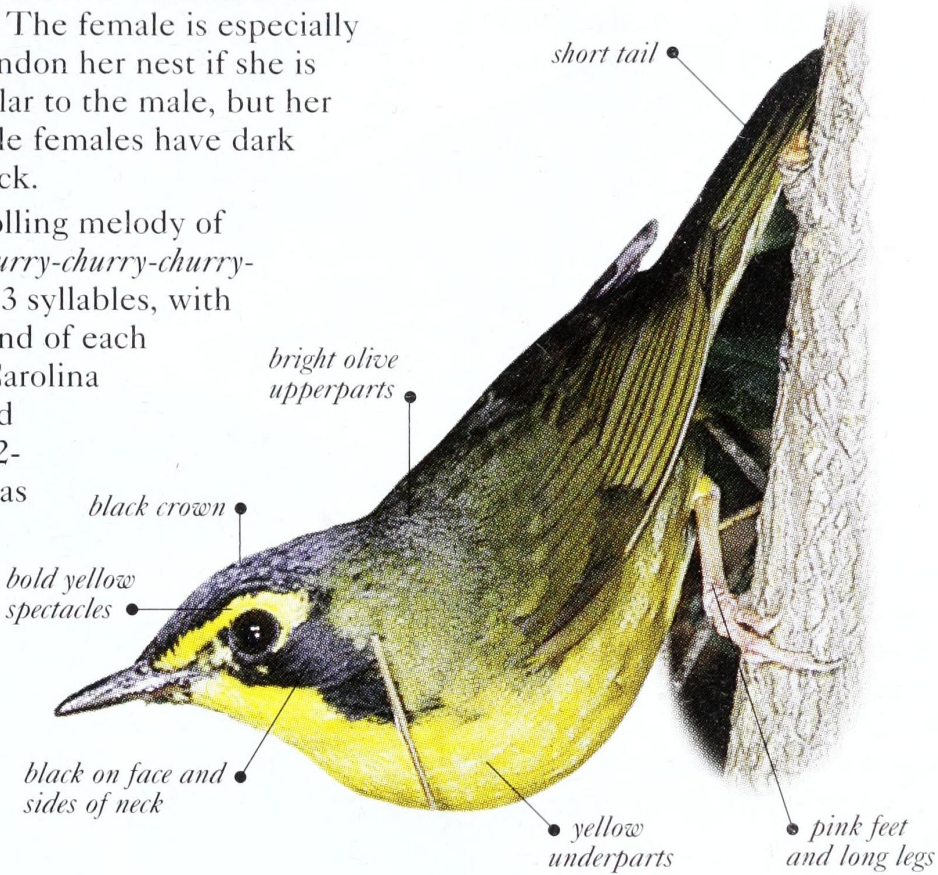
Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.7 ounce
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Family PARULIDAE	Species <i>Oporornis formosus</i>	Length 5.25 inches	Wingspan 8.25 inches
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KENTUCKY WARBLER

This retiring, short-tailed chunky bird is named for the state where it was first encountered, but it is common throughout most of the damp shaded woodlands in southeastern North America. The female is especially wary and will sometimes abandon her nest if she is threatened. She appears similar to the male, but her black areas are duller. Juvenile females have dark olive plumage in place of black.

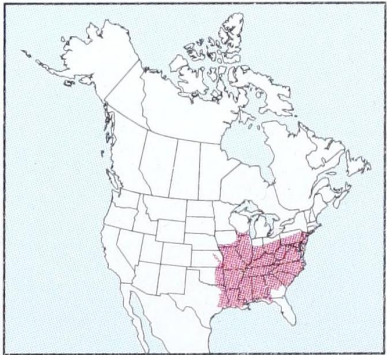
- **SONG** Loud and rich. A rolling melody of 5–8 notes with 2 syllables, *churry-churry-churry-churry-churry*, but sometimes 3 syllables, with an upward inflection at the end of each phrase. Reminiscent of the Carolina Wren, but drier sounding, and although the wren may give 2-syllabled notes, more often has 3-syllabled notes in its song series. Has call of low abrasive *chuck chuck*.
- **BEHAVIOR** Solitary or in pairs. Rather secretive; more often heard than seen. Terrestrial, but also forages and sings in low to middle levels of vegetation. Hops or runs on ground while flicking its tail, which is usually partially cocked upward. Forages for food by picking over foliage and branches and overturning leaves. Jumps up to pick insects off bottom side of leaves. Eats adult insects, spiders, and caterpillars.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 12–13 days by female. Altricial young brooded by female; stay in nest 8–10 days, fed by both sexes, but female does more. 1 brood per year.
- **POPULATION** Common in moist woodlands with dense understory; large tracts are optimum. In migration, casual to rare in the Southwest to California.



Similar Birds



COMMON YELLOWTHROAT
First fall male • some black on sides of face; olive-gray to olive-brown upperparts; paler yellow underparts; whitish belly; brownish flanks; longer tail.



Flight Pattern



Swift short direct flights with rapidly beating wings.

Nest Identification

Shape 

Location 

Grasses, stems, vines, and leaves • lined with mammal hair and rootlets • on ground, near base of tree or bush, or clump of vegetation, sometimes in fork of low shrub • build by both sexes • 3–6 white or creamy white eggs, with brown flecks and splotches; short oval to long oval, 0.75 x 0.58 inches.

Plumage Sexes similar	Habitat  	Migration Migratory	Weight 0.5 ounce
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DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Oporornis agilis</i>	Length 5.5 inches	Wingspan 8.75 inches
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CONNECTICUT WARBLER

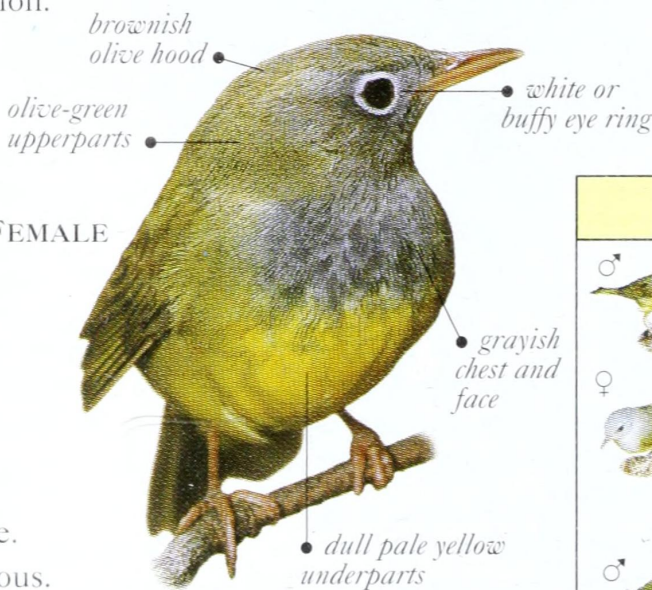
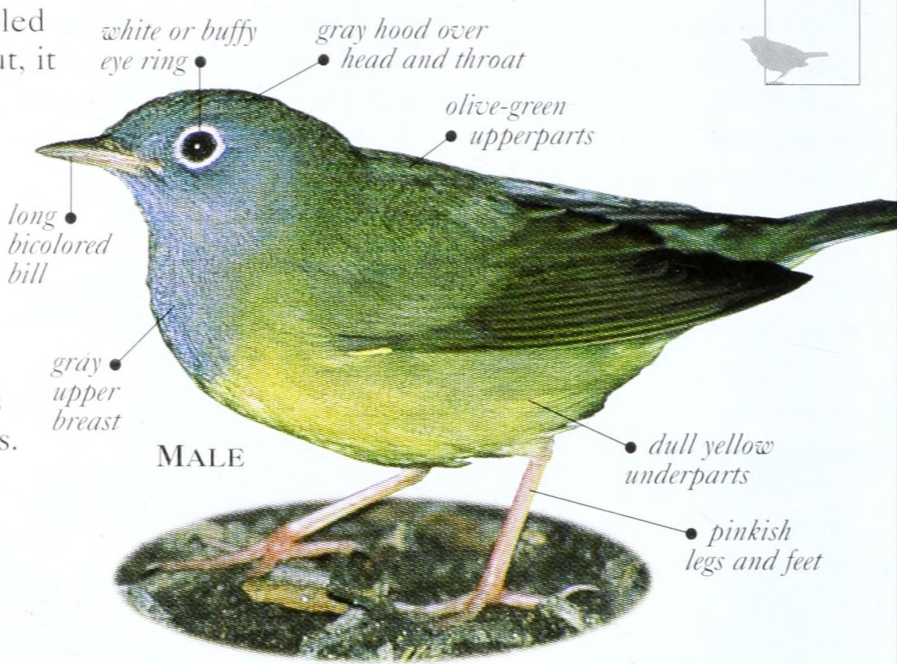
Although this large chunky short-tailed shy bird does not nest in Connecticut, it was first seen in that state and is a regular autumn visitor. Its secretive habits make this a poorly known species. Its wintering grounds in South America are not clearly defined, and as one of the year's latest migrants, taking vastly different spring and fall routes, it often is not seen. Males and females have long yellowish undertail coverts.

• **SONG** Bold rocking jerky *whipity-whipity-whipity* or *beacher, beacher, beacher*. Call is *plink* or *chimp*.

• **BEHAVIOR** Solitary or in pairs. Secretive. Terrestrial; also forages low in vegetation. Singing males may move higher in trees. Female lands 30–60 feet from nest and walks to conceal location. Walks with slight bobbing of tail instead of hopping. Walks on logs and branches. Gleans insects and spiders; also snails, berries, and seeds. When flushed, flies up to perch and may sit still for several minutes, thrushlike.

• **BREEDING** Monogamous. Solitary nester.

• **NESTING** Breeding biology poorly known. Estimated incubation 11–12 days by female. Young altricial; brooded by female; stay in nest estimated 8–9 days, fed by both sexes.

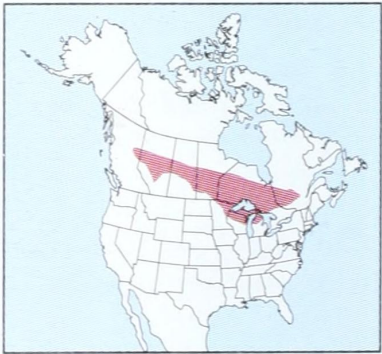


Similar Birds	
	MOURNING WARBLER Smaller; thinner; thin broken grayish white eye ring; shorter undertail coverts; richer yellow underparts; hops rather than walks • juvenile has paler throat.
	
	NASHVILLE WARBLER Smaller; thinner; white eye ring with pale lores; short undertail coverts; yellow throat; dark legs; short bill.

Flight Pattern	
	
Rather swift direct flight for short distances on rapidly beating wings.	

Nest Identification	
Shape 	Location 

- 1 brood per year.
- **POPULATION** Uncommon in most woodlands. Fall migrants uncommon in East.
- **CONSERVATION** Neotropical migrant. Infrequent host to cowbirds. Species may be declining; reasons unknown.



Bark pieces and grass, with lining of fine plant materials and mammal hair • on small hillock of moss or sheltered by reeds and grasses • may be built by both sexes • 3–5 creamy white eggs, splotched and flecked with lavender, browns, and black; short ovate, 0.74 x 0.57 inches.

Plumage Sexes differ	Habitat    	Migration Migratory	Weight 0.5 ounce
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DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Oporornis philadelphia</i>	Length 5.25 inches	Wingspan 8.25 inches
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MOURNING WARBLER

The eastern counterpart to MacGillivray’s Warbler was named for the way its black breast and gray hood resemble a person in mourning. Usually skulking in the undergrowth of damp woodlands, the male will fly up from the bushes to sing and is more often heard than seen. The female is similar to the male but has a paler dusky hood, light grayish throat, and a more distinct eye ring. Juveniles have pale yellowish throats and broken thin white eye rings. Traveling over eastern Mexico, this bird circumnavigates the western Gulf of Mexico, making it one of the latest spring migrants of all North American warblers.

• **SONG** Typically a 2-part song, with the second part lower in pitch, *cherrie, cherrie, chorrie, chorrie*. Individual and regional variations exist. Call is a sharp raspy *chit*, sometimes given in a series.

• **BEHAVIOR** Solitary or in pairs. Secretive. Sings often in migration and on breeding grounds. Will respond to pishing by birders. Terrestrial, forages low in vegetation hidden in undergrowth. Hops and flicks wings and tail. Gleans insects and spiders.

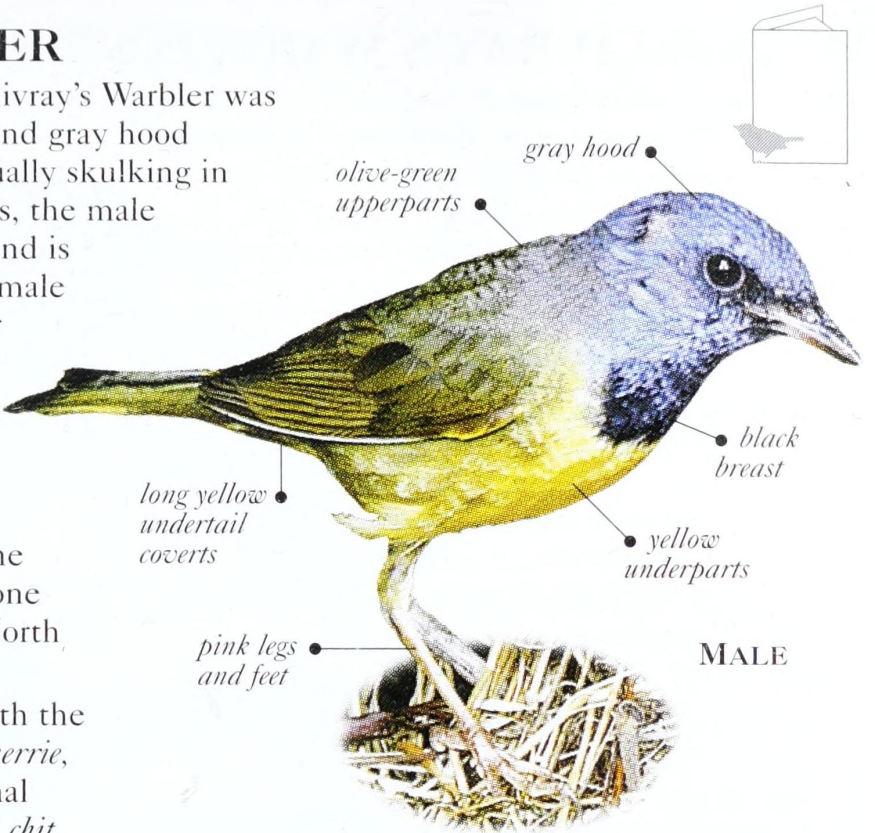
• **BREEDING** Monogamous. Solitary nester.

• **NESTING** Incubation 12 days by female. Altricial young brooded by female; remain in nest 7–9 days, fed by both sexes. 1 brood per year.

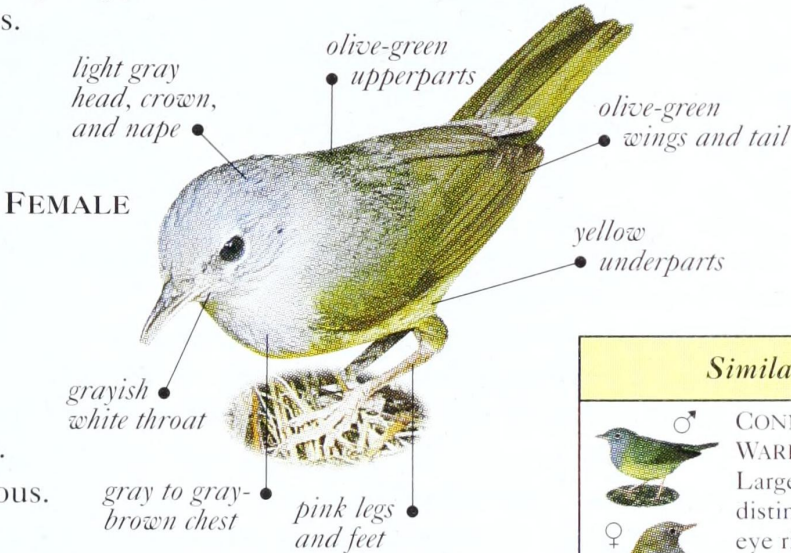
• **POPULATION** Fairly common in dense shrubbery in open deciduous woodlands, dense second growth, bog, and marsh edges.

• **CONSERVATION** Neotropical migrant. Infrequent host to cowbirds.

Dried grasses, leaves, and stalks • lined with grass and mammal hair • placed near or on grassy hillock, base of shrub or other vegetation, or low in vegetation • 0–2.5 feet above ground • 3–5 creamy white or white eggs, with fine dots of brown; short ovate; 0.7 x 0.5 inches.



MALE

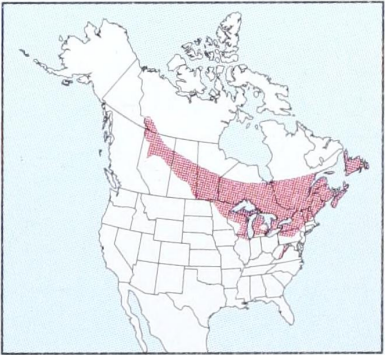


FEMALE



JUVENILE

Similar Birds	
	♂ CONNECTICUT WARBLER Larger; longer bill; distinct buffy to white eye ring; long undertail coverts; walks instead of hopping; voice differs.
	♀



Flight Pattern	
Fairly swift direct flight over short distances on rapidly beating wings.	

Nest Identification	
Shape	Location

Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.5 ounce
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DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Oporornis tolmiei</i>	Length 5.25 inches	Wingspan 8.25 inches
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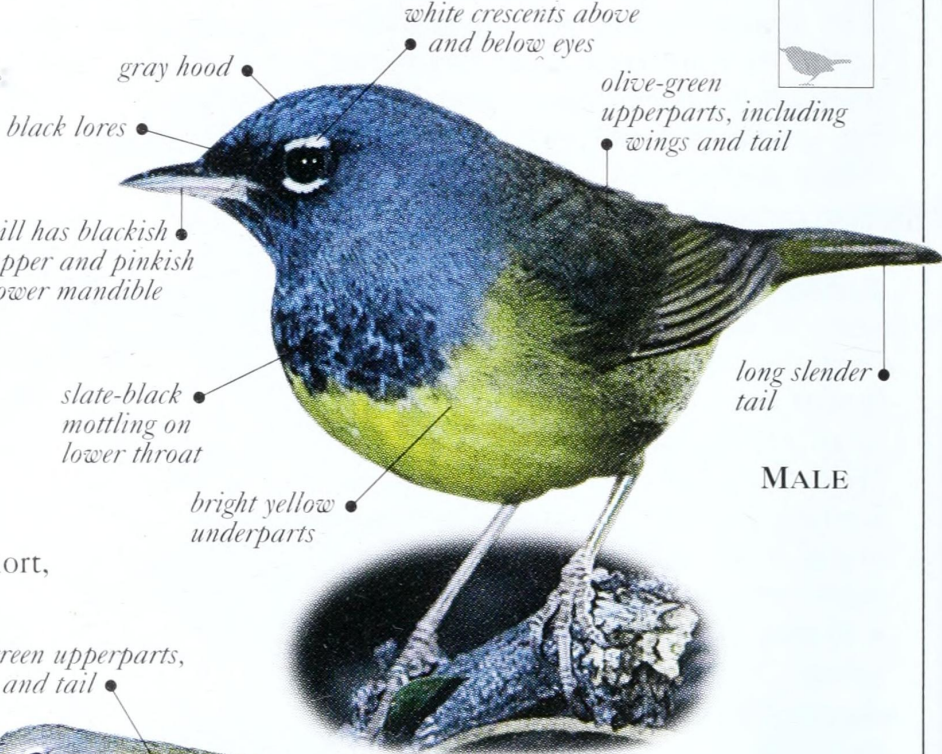
MACGILLIVRAY'S WARBLER

The western counterpart to the Mourning Warbler remains hidden in thick vegetation on or close to the forest floor until breeding season, when the male becomes more conspicuous and perches to sing in a higher, more exposed position above the thickets, bill pointed toward the sky. Both sexes have legs that are basically pink, but the male's legs do vary from grayish pink to brownish pink. Juveniles are similar to females.

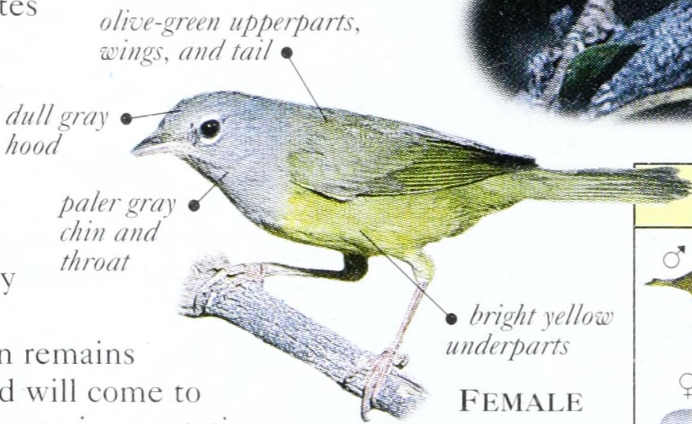
• **SONG** Usually two parts, 3–5 short, slightly coarse notes followed by 2–3 slightly slurred notes on a lower pitch, *swee-eet, swee-eet, swee-eet, peachy, peachy, peachy*. Individual and geographical variation. Call is loud sharp *tsik*.

• **BEHAVIOR** Solitary or in pairs. Skulks in thickets, where it often remains hidden. Inquisitive and will come to pishing by birders. Forages in vegetation on or close to ground, gleaning from ground, leaves, or bark. Takes adult insects and caterpillars, spiders, and worms. Frequently feeds from sapsucker wells. Hops, often flicking tail from side to side.

- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 11 days by female. Young altricial; brooded by female; remain in nest 8–9 days, fed by both sexes. 1 brood per year.
- **POPULATION** Fairly common in dense undergrowth, especially



MALE



FEMALE

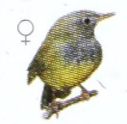
Similar Birds



MOURNING WARBLER
Lacks distinct eye crescents • male has more black mottling on throat and upper breast; shorter tail • adult female and juvenile has thin eye rings broken in front • juvenile has paler throat.



CONNECTICUT WARBLER
Distinct white eye ring; duller underparts; longer undertail coverts; shorter tail; walks instead of hops.

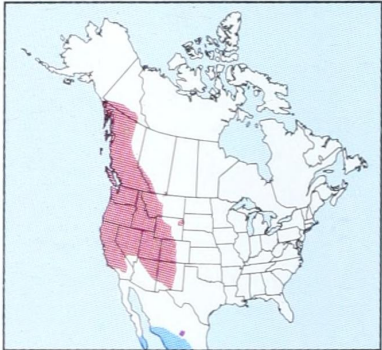


Flight Pattern

Fairly swift direct flight for short distances on rapidly beating wings.

riparian willow, alder, and shaded deciduous thickets. Stable or slightly increasing in some areas. Vagrant in the Midwest and East in migration.

• **CONSERVATION**
Neotropical migrant.
Uncommon cowbird host.



Nest Identification

Shape Location

Stems and dried grass, lined with mammal hair, rootlets, and grasses • set on tall grassy tussock, tall weeds, or in fork of bush, 1–5 feet above ground • built by female, perhaps with help from male • 3–6 creamy white or white eggs, with various brown markings; short ovate to ovate, 0.7 x 0.53 inches.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.4 ounce
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Family PARULIDAE	Species <i>Geothlypis trichas</i>	Length 5 inches	Wingspan 8 inches
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COMMON YELLOWTHROAT

One of the most numerous and widespread warblers usually stays close to the ground, concealed in vegetation. The amount of yellow on the underparts, the shade of olive on the upperparts, and the color of the pale border between the mask and crown all vary with geography.

• **SONG** Bold rhythmic *wichity wichity wich*; varies with range. Sharp raspy call of *chuck* or *djip*; sometimes flat *pit* note.

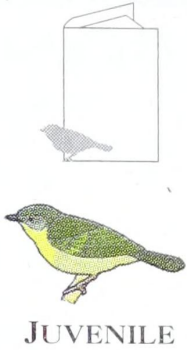
• **BEHAVIOR** Solitary or in pairs. Wrenlike; skulks in vegetation, climbs vertically on stems, cocks and flicks

dusky to gray-brown forehead, lores, and ear patch • pale gray to buff eye ring • pale yellow upper breast, throat, and chin • dull whitish lower breast and belly • dull olive upperparts • dull yellow undertail coverts

black mask, bordered by thin blue-gray or white band • olive-gray to olive-green upperparts • bright yellow chin, throat, breast, and undertail coverts • brownish-washed flanks • white belly

MALE

FEMALE



JUVENILE

Similar Birds

NOTE Black mask separates adult males from other North American warblers.



♀ CONNECTICUT WARBLER Female and juvenile are larger; chunkier; bolder white eye ring; longer wings; browner upperparts; yellow underparts; long undertail coverts; short tail; walk on ground or limbs.



♀ MACGILLIVRAY'S WARBLER Female and juvenile are hooded; yellow underparts; broken white eye ring; longer wings.



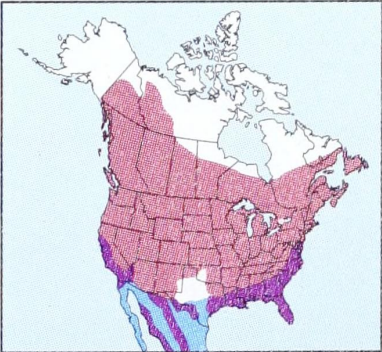
♀ MOURNING WARBLER Female and juvenile have brownish hood; yellow underparts; short tail • female has yellow throat; eye ring either complete or broken.



tail, and droops and flicks wings. Hops on ground, gleaning from foliage, twigs, and grass. Eats insects, caterpillars, and spiders. Sometimes hover-gleans and hawks flying insects.

• **BREEDING** Monogamous. Solitary. Often polygamous.
• **NESTING** Incubation 12 days by female. Young altricial; brooded by female; stay in nest 8–10 days, fed by both sexes. 2 broods with single female per year; more if polygamous.
• **POPULATION** Common to abundant in marshes, brushy fields, hedgerows, woodland edges, and second growth brush. Some decline in the South, Texas, and San Francisco Bay.

• **CONSERVATION** Neotropical migrant. Frequent cowbird host. Vulnerable to habitat loss due to wetland drainage and stream channelization.



Flight Pattern

Slow weak jerky flight with rapid wing beats, alternating with brief periods of wings pulled to sides. Sallies from perch to take insects in midair, returning to perch.

Nest Identification

Shape Location

Dried grasses, dried leaves, stems, bark chips, and sedges • lined with fine grasses, hair, and bark fibers • atop small pile of weeds or grass or atop cattails, sometimes in small shrub, less than 3 feet above ground • built by female • 3–6 creamy-white or white eggs, flecked with black, grays, and browns, mostly at larger end; oval to short oval, 0.7 x 0.5 inches.

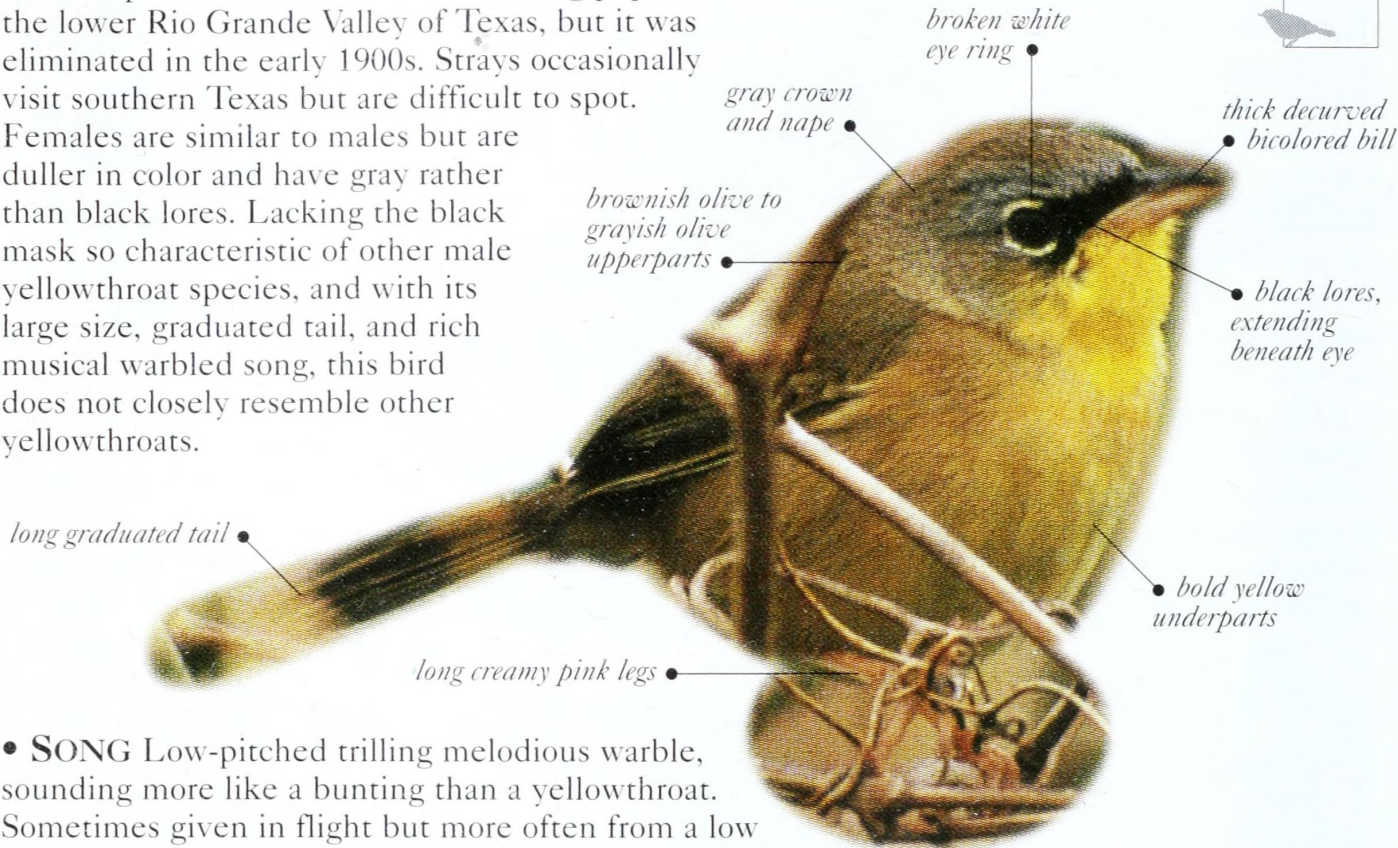
Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.4 ounce
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DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Geothlypis poliocephala</i>	Length 5.5 inches	Wingspan 8.5 inches
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GRAY-CROWNED YELLOWTHROAT

This tropical warbler once had a nesting population in the lower Rio Grande Valley of Texas, but it was eliminated in the early 1900s. Strays occasionally visit southern Texas but are difficult to spot. Females are similar to males but are duller in color and have gray rather than black lores. Lacking the black mask so characteristic of other male yellowthroat species, and with its large size, graduated tail, and rich musical warbled song, this bird does not closely resemble other yellowthroats.



- **SONG** Low-pitched trilling melodious warble, sounding more like a bunting than a yellowthroat. Sometimes given in flight but more often from a low perch. Call is sharp nasal *chee'dle*.
- **BEHAVIOR** Solitary. Skulks low in dense vegetation. Frequents tall dense grasses with shrubs, also low trees. Pops up to sing from exposed perch. Forages on ground or low in trees and shrubs, with tail cocked and wagging. Eats insects, spiders, and berries. Hawks insects. May adopt a "straight-up" posture, sitting erect with tail pointed straight down.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Breeding biology poorly known. Incubation estimated at 10–12 days, by female. Young altricial, brooded by female; stay in nest estimated 8–10 days, fed by both sexes. 1 brood per year, possibly more.
- **POPULATION** Rare in North America. Formerly rare on delta of lower Rio Grande in Texas. Possible cause is loss of habitat due to agriculture.

Similar Birds



COMMON YELLOWTHROAT
Juvenile male has olive upperparts, including crown; black mask reduced to area around eye; complete yet indistinct eye ring; dull yellow underparts with whitish belly; straight bill of uniform color; more wrenlike actions; voice differs.



- **CONSERVATION** Early successional-stage species in pastures and grassy fields. Has increased in Mexico and Central America with deforestation. Host to parasitism by cowbirds.

Flight Pattern	
	
Slow and jerky short direct flights on rapidly beating wings. Sallies from perch to snatch insects in air; returns to perch.	
Nest Identification	
Shape 	Location 

Thick grass with lining of fine grasses and hair • atop small grassy hillock • probably built by female • 2–4 creamy white or white eggs, with reddish brown flecks; oval to short oval, 0.7 inches long.

Plumage Sexes similar	Habitat 	Migration Nonmigratory	Weight 0.5 ounce
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DATE _____ TIME _____ LOCATION _____

Family PARULIDAE

Species *Wilsonia citrina*

Length 5.25 inches

Wingspan 8 inches

HOODED WARBLER

This bird resides in the thick foliage of the understory beneath tall deciduous trees. When the male sings from his high perch, often concealed, he may sit almost motionless as he delivers his ringing song. The juvenile female lacks the black on her crown but has dusky lores and white tail spots.

• **SONG** A bold whistled melody with emphatic ending, *ta-wit, ta-wit, tee-yoe* or *wheta, wheta, whee-TEE-o*. A second song of slurred whistles rises continuously, *wee-tee, wee-tee, WEE-too-Wee*. Call is loud abrupt *chink*.

• **BEHAVIOR** Solitary or in pairs. Sings persistently. Constantly opens and closes tail laterally, flashing white in tail corners. Forages low, commonly on

ground. Often remains hidden in dense thickets. Hover glean and catches insects in flight; picks some food off leaves and branches. Eats adult insects, caterpillars, and spiders. Requires mature shaded forests with well-developed shrubby understory.

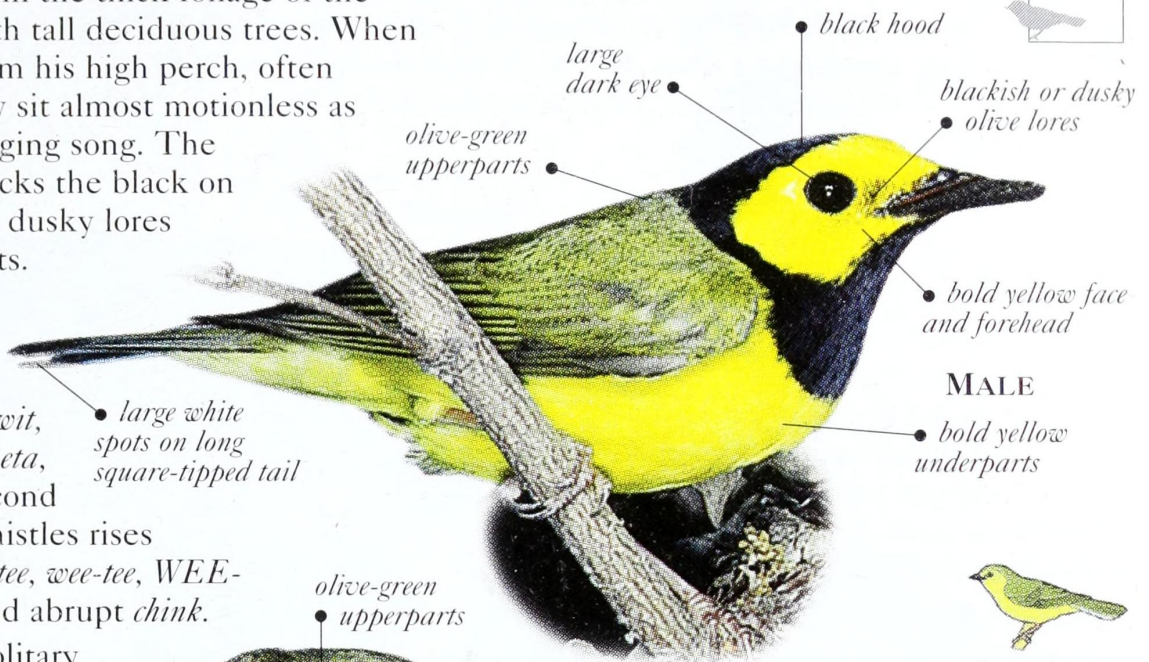
• **BREEDING** Monogamous. Solitary nester.

• **NESTING** Incubation 12 days by both sexes. Young altricial; brooded by female; remain in nest 8–9 days, fed by both sexes. 1–2 broods per year.

• **POPULATION** Fairly common in upland and bottomland woodlands, swamps, and ravines with dense understory. Rare to casual in western states, where it has rarely nested. Rare in fall in the Maritimes.

• CONSERVATION

Neotropical migrant. Frequent cowbird host. Vulnerable to habitat loss from timbering operations, land clearing, and grazing in woodlots by cattle and by overbrowsing by deer.



MALE



FEMALE



JUVENILE FEMALE

Similar Birds



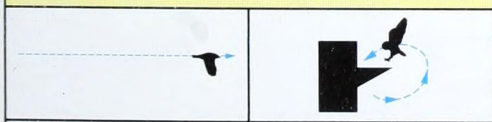
WILSON'S WARBLER
Female and juvenile Hooded Warbler.
• smaller; smaller bill; lacks white spots on tail; face lacks dusky lores; call note differs.



YELLOW WARBLER
Female and juvenile Hooded Warbler.
• yellow overall; yellow edging to wings and coverts; yellow patches in tail; no dusky or black on head; prominent dark eye on yellow face • male has red streaking on breast.



Flight Pattern



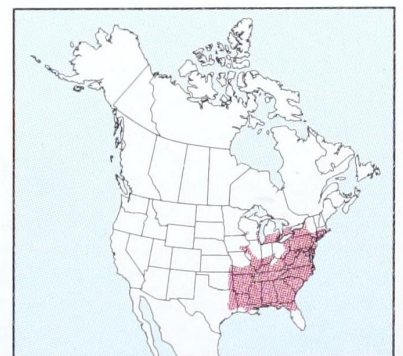
Fairly swift direct flight of short duration on rapidly beating wings. Sallies up to take insects in flight.

Nest Identification

Shape

Location

Dried leaves, plant fibers, and down, bound with spider's silk, with lining of mammal hair and grasses • in fork of shrub or small tree, 1–5 feet above ground • built by female • 3–5 cream eggs, with splotches and dots of brown, usually at larger end; usually ovate, 0.72 x 0.53 inches.



Plumage Sexes differ

Habitat

Migration Migratory

Weight 0.4 ounce

DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Wilsonia pusilla</i>	Length 4.75 inches	Wingspan 7.5 inches
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WILSON'S WARBLER

Making its home in the thick damp woodlands and bogs of western North America, this active warbler has a wide nesting range, from Alaska to New Mexico, in the boreal forest from the Pacific to the Atlantic coast in Canada, and south into the New England states. The female is similar to the male but lacks the black cap or has only a light gray-black wash on her crown. Juvenile females lack the black crown altogether.

• **SONG** Quick series of slurred *chee-chee-chee* notes, dropping in pitch at the end. Subject to much individual and regional variation. Call is abrasive nasal *chimp*.

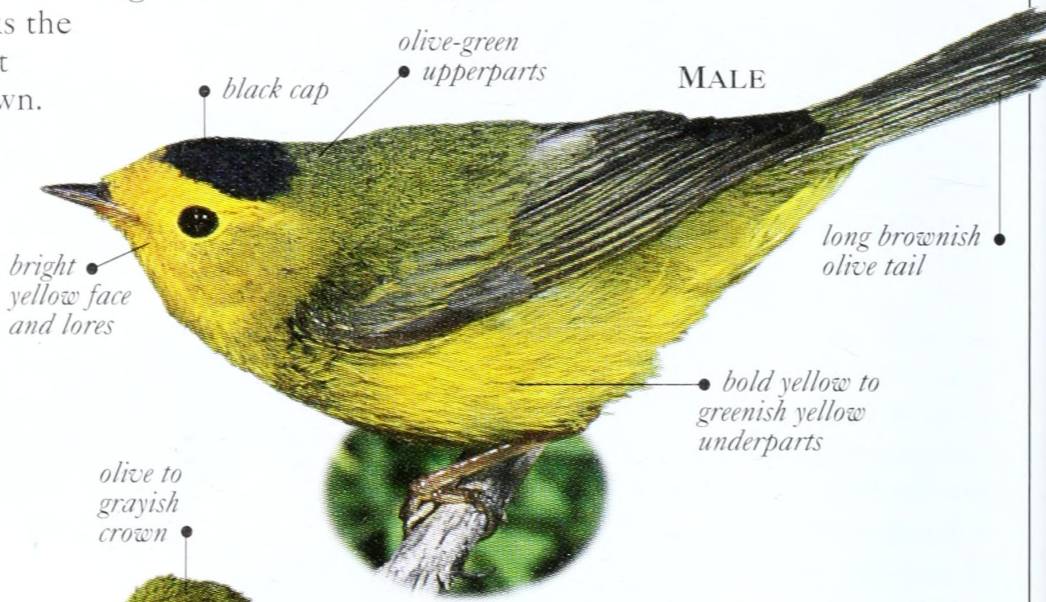
• **BEHAVIOR** Solitary or in pairs. Tame and inquisitive; responds to pishing by birders. Energetic. Moves tail up and down or in a circular fashion, similar to a gnatcatcher, as it picks food off foliage by gleaning and hover-gleaning. Also catches insects in flight. Eats spiders, insects, and berries.

• **BREEDING** Monogamous. Solitary in coastal areas. Forms loose colonies and is polygynous at high elevations.

• **NESTING** Incubation 10–13 days by female. Young altricial; brooded by female; stay in nest 8–11 days, fed by both sexes. 1 brood per year.

• **POPULATION** Common to fairly common in dense moist woodlands, willow and alder bogs, riparian corridors, and dense brushy ground cover in moist situations. Much more numerous in the West than in the East.

• **CONSERVATION** Neotropical migrant. Uncommon cowbird host, except in the coastal lowlands of California. Vulnerable to habitat loss from destruction of lowland riparian thickets.



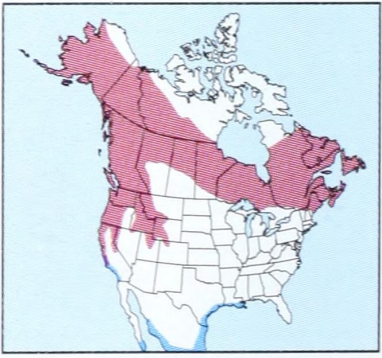
Similar Birds



HOODED WARBLER ♂
White spots on tail, which it constantly flicks open and closed; longer bill; dark dusky lores; black hood in males, with suggestion of hood in many females.



YELLOW WARBLER ♀
Female and juvenile • yellow edging to wings and wing coverts; yellow spots in tail; short tail with undertail coverts reaching closer to tip; more subdued tail wag.



Flight Pattern	
Swift flight of short duration on rapidly beating wings. Sallies forth from perch to take insects in midair before returning.	

Nest Identification	
Shape	Location

Dried leaves, stalks, moss, and grass, with lining of fine grasses • atop grassy tussock, pile of moss, or sedges, or set at base of tree or bush, or in low shrub • 0–3 feet above ground • built by female • 4–7 creamy white or white eggs, with flecks of brown, sometimes wreathed; oval to short oval, 0.6 inches long.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.3 ounce
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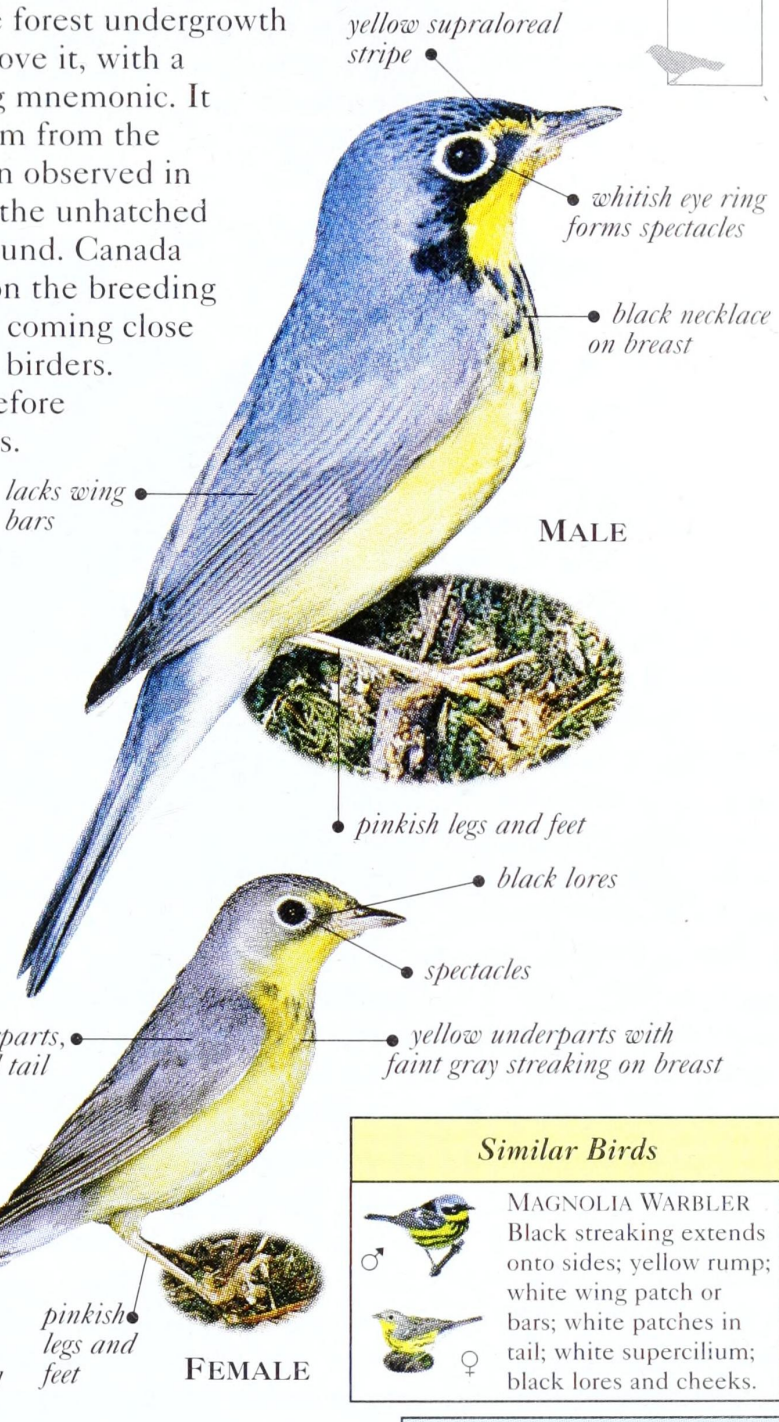
DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Wilsonia canadensis</i>	Length 5–6 inches	Wingspan 7.5–8.75 inches
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CANADA WARBLER

This bird sings frequently from the dense forest undergrowth it favors, or from an exposed perch just above it, with a jumbled warbling song that defies a fitting mnemonic. It actively forages for insects by flushing them from the foliage and chasing them. Males have been observed in “anticipatory feeding,” offering insects to the unhatched eggs in the well-concealed nest on the ground. Canada Warblers are more often seen than heard on the breeding grounds, but a bird often will reveal itself, coming close to squeaking and pishing sounds made by birders. This early fall migrant heads southward before many other warblers begin their migrations. During migration they are often seen in pairs, and may be traveling with their mate of the season.

- **SONG** *Chip* followed by explosive staccato series of short notes ending with 3-note phrase, the last note rising in pitch. Song carries well and is given often on breeding grounds.
- **BEHAVIOR** Skulks in the undergrowth; often concealed when perched. Frequently found in low, dense, luxuriant undergrowth under mixed hardwoods. Gleans insects from foliage, stems, and ground; sometimes flycatches.
- **BREEDING** Solitary nester.
- **NESTING** Incubation 12 days by female. Altricial young fledge at 10–12 days. Probably 1 brood per year.
- **POPULATION** Common to fairly common in breeding range and in migration in the East; casual to accidental elsewhere. Declining.



Similar Birds

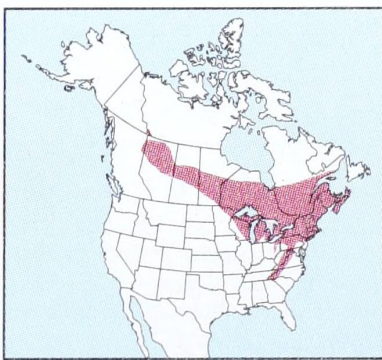


♂

MAGNOLIA WARBLER
Black streaking extends onto sides; yellow rump; white wing patch or bars; white patches in tail; white supercilium; black lores and cheeks.



♀



Flight Pattern



Direct flight with rapid somewhat fluttering wing beats.

Nest Identification

Shape  Location  

• **CONSERVATION**
Neotropical migrant. Host to Brown-headed Cowbirds. Vulnerable to disturbance of mature forest on wintering ground. Habitat loss and forest fragmentation negatively affecting populations.

Generally on the ground • bulky cup of dead leaves, grasses, dried plants, and ferns • lined with finer grasses and rootlets • on a bank, upturned tree roots, or mossy hummocks • built by female • 3–5 brown, buff, or creamy white eggs with speckled dots and small blotches of various shades of brown, gray, and purple; oval to short oval, 0.68 x 0.5 inches.

Plumage Sexes differ	Habitat   	Migration Migratory	Weight 0.4 ounce
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DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Cardellina rubrifrons</i>	Length 5 inches	Wingspan 7.5 inches
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RED-FACED WARBLER

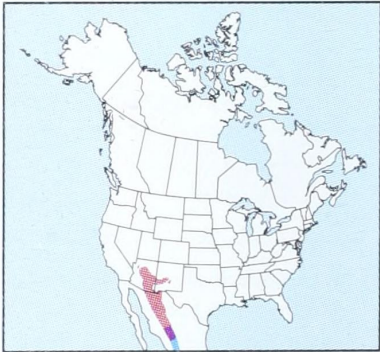
Sporting a scarlet and black face, this active bird is easily recognizable. A native of Mexico and Central America, it regularly nests in the high mountain forests of Arizona and New Mexico in conifers, oaks, and aspen at 6,400–8,000 feet, sometimes lower in shaded canyons. This inquisitive species comes readily to the squeaking and pishing of birders. When clinging chickadee-like upside down on trees, the white nape patch and white rump often are visible. The red on the face of the female is a little less bright than that of the male, and juveniles are similar to adults, just a little duller.

- **SONG** A ringing melodic series of notes, with an emphatic ending of several slurred notes, *wi tsi-wi tsi-wi si-wi-wishu*, reminiscent of a Yellow Warbler’s song. Call note is a hard *shup*.
- **BEHAVIOR** Solitary or in pairs. Tame and approachable. Active and acrobatic forager. Picks food off oaks and conifers from branches and clusters of needles, sometimes hanging upside down beneath the limb or cone. Catches some insects in flight. Eats mostly insects and spiders. May join mixed-species feeding flocks after breeding season.
- **BREEDING** Monogamous. Solitary nester. Small loose colonies.
- **NESTING** Breeding biology poorly known. Incubation estimated at 10–13 days by female. Young altricial, brooded by female; remain in nest estimated 8–11 days, fed by both sexes. 1 brood per year.
- **POPULATION** Fairly common in montane oak-conifer forests. Casual to western Texas and southern California. Current populations seem to be stable and have expanded slightly in US breeding range in the 20th century. Accidental in southern Texas and Louisiana.



Similar Birds

No other bird in its US range has a red and black face with a gray and white body.



- **CONSERVATION** Neotropical migrant. Unlike most other warbler species, not known to be parasitized by cowbirds. Vulnerable to loss of nesting and wintering habitats due to timbering operations.

Flight Pattern

Fairly swift flight of short duration on rapidly beating wings. Sallies forth from perch to snatch insect in midair and returns to perch.

Nest Identification

Shape Location

Stems, leaves, bark pieces, and conifer needles, with lining of fine plant material and mammal hair • hidden by grasses or sheltered by rock, base of tree, or log • which sex builds unknown • 3–4 white eggs, with fine dots of brown; oval to short oval, 0.65 x 0.5 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.4 ounce
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DATE _____ TIME _____ LOCATION _____

Family PARULIDAE

Species *Myioborus pictus*

Length 5.5 inches

Wingspan 8.5 inches

PAINTED REDSTART

Easily identified by its conspicuous scarlet breast and white wing patches, this native of Mexico and Central America also nests in the wooded pine-oak foothills and mountain canyons of the Southwest. It often spreads its tail and droops its wings while hopping over stumps and branches. In the dark shadowed habitats the redstart frequents, the resulting white flashes may attract the attention of the bird's mate, foraging nearby. The white flashes may also startle insects into revealing themselves as prey. In flight this bird shows a white crissum with black scalloping. Juveniles are duskier and lack the red underparts until early fall.

• **SONG** A full melodic low-pitched warble, *weacher*, *weacher*, *weacher chee*, the last note emphatic and single-syllabled, but all preceding notes 2-syllabled. Songs are given rather slowly, with much variation by a single male and between singers. Females may duet with male. Has call note of squeaky down-slurred *peep*.

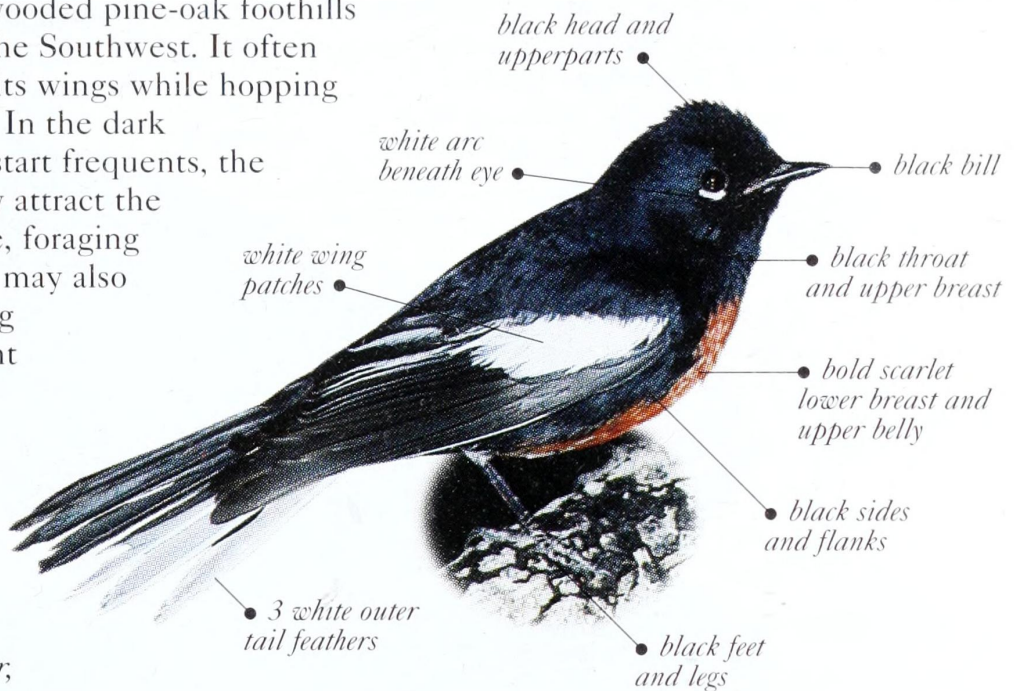
• **BEHAVIOR** Solitary or in pairs. Tame and inquisitive. Hops on ground, logs, rocks, and branches, often turning sideways with each hop and flashing tail open or spreading it open with wings partially spread. Eats only insects. Forages actively on ground, in lower to middle levels of vegetation, and sometimes high in trees. Gleans, hover-gleans, and catches insects in flight. May join mixed-species foraging flocks outside breeding season.

• **BREEDING** Monogamous. Solitary nester.

• **NESTING** Incubation 13–14 days by female. Young altricial; brooded by female; stay in nest 9–13 days, fed by both sexes. 1–2 broods per year.

• **POPULATION** Fairly common to common in montane canyons of shaded pine-oak habitat. Rare in southern California. Accidental to rare elsewhere outside breeding range.

• **CONSERVATION** Neotropical migrant. Rare host to cowbird parasitism. Vulnerable to habitat loss because of logging and also from overgrazing in woodlots.

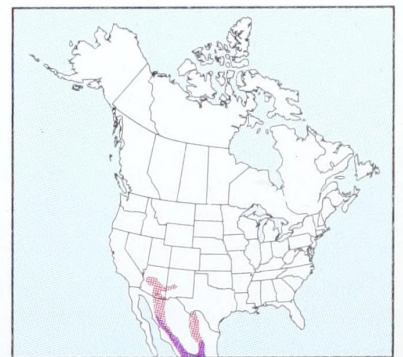


Similar Birds

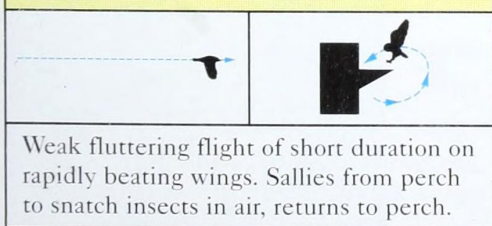
Unmistakable; no other North American warbler resembles it.



SLATE-THROATED REDSTART
Accidental vagrant
• slate-gray wings, lacking white patches; slate-gray upperparts and face; dark chestnut crown patch; lacks white arc beneath eye; less white in tail; black-scalloped white crissum.



Flight Pattern



Nest Identification

Shape Location

Stalks and bark pieces • cup often roofed • lined with grasses and hair • built on ground, sheltered by large rock, grassy tussock, tree roots, shrub, or side of bank • built by female • 3–4 creamy white eggs, with specks of brown, mostly at larger end, not wreathed; oval to short oval, 0.7 x 0.55 inches.

Plumage Sexes similar

Habitat

Migration Migratory

Weight 0.3 ounce

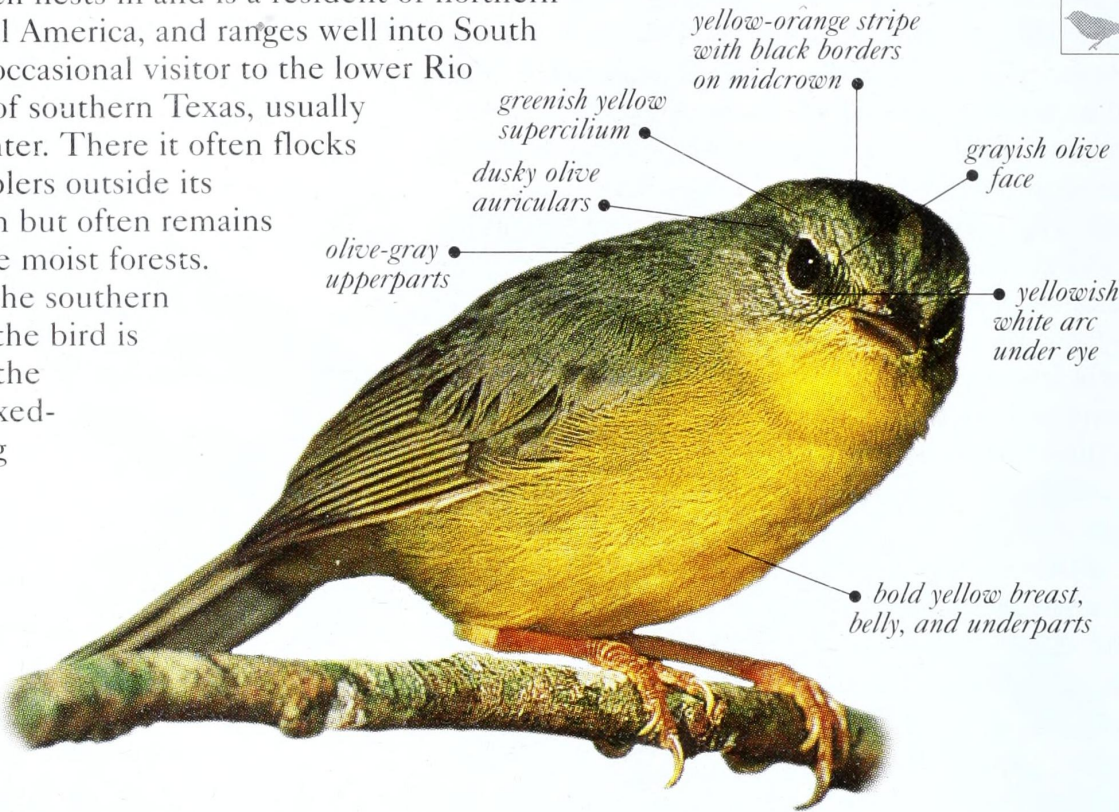
DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Basileuterus culicivorus</i>	Length 5 inches	Wingspan 7.5 inches
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GOLDEN-CROWNED WARBLER

This bird, which nests in and is a resident of northern Mexico, Central America, and ranges well into South America, is an occasional visitor to the lower Rio Grande Valley of southern Texas, usually recorded in winter. There it often flocks with other warblers outside its breeding season but often remains hidden in dense moist forests. When visiting the southern United States, the bird is often found in the company of mixed-species foraging flocks of

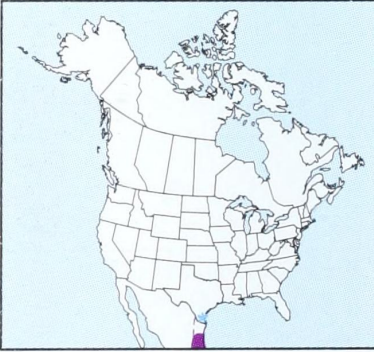


- titmice, gnatcatchers, warblers, and other songbirds. Juveniles resemble adults.
- **SONG** A rich whistled warble of *wee-wee-wee-see*’ or *chew-chew-chew-weee*’, ending with an up-slurred note. Call is a series of *tick* or *chip*.
 - **BEHAVIOR** Solitary or in pairs. A shy skulking species. Active and restless; often flicks open or jerks tail and wings. Forages on ground and low in trees by picking food off foliage; occasionally hawks prey. Eats mainly insects and spiders.
 - **BREEDING** Monogamous. Solitary nester.
 - **NESTING** The breeding biology of the Golden-crowned Warbler is poorly known. The time of incubation and the time nestlings stay in the nest is also unknown. The role of the sexes in nesting and in the number of broods per year is unknown or has not been published.

Similar Birds



ORANGE-CROWNED WARBLER
Olive-green upperparts; olive-yellow underparts with faint dusky streaking; dusky eye stripe; greenish yellow supercilium; yellow crissum; lacks yellow-orange crown stripe with black border; sometimes shows rusty orange patch on crown.



Flight Pattern

Weak fluttering direct flight of short duration on rapidly beating wings.

Nest Identification

Shape Location

- **POPULATION** This bird is casual in the lower Rio Grande Valley of southern Texas.
- **CONSERVATION** Not of special concern. There are no published records of any degree of cowbird parasitism.

Grasses and plant fibers, oven or dome-shaped with lining of fine materials

- sheltered by bank, clump of grass, or large boulder
- built by female
- 2-4 white eggs, with reddish brown markings, concentrated at larger end; oval to short oval, 0.68 x 0.53 inches.

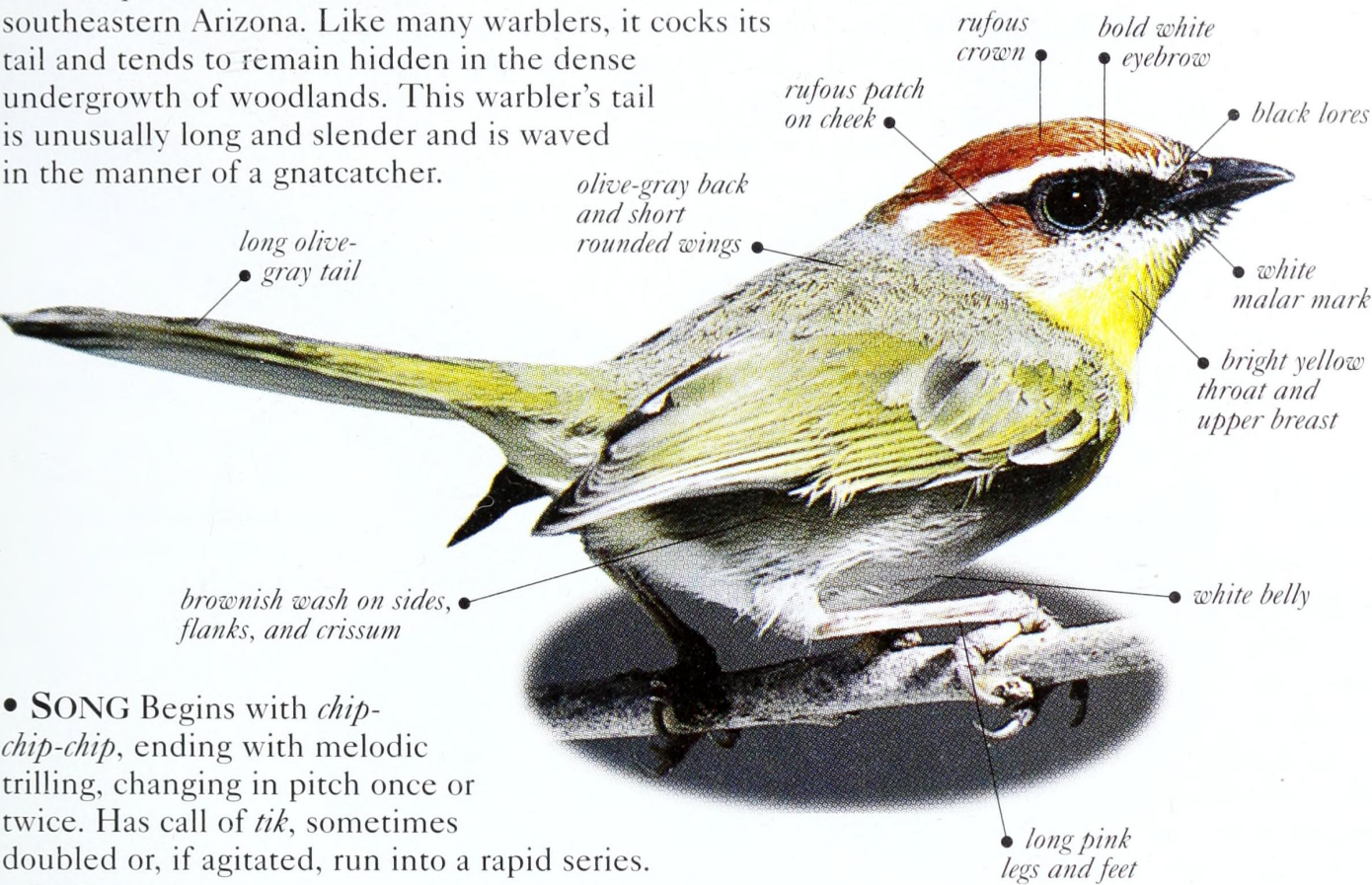
Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 0.4 ounce
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DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Basileuterus rufifrons</i>	Length 5.25 inches	Wingspan 8 inches
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RUFOUS-CAPPED WARBLER

Easily identifiable by its bold rufous cap, broad white eyebrow, and yellow throat, this endemic of Mexico and Guatemala is an infrequent visitor to southern and western Texas and southeastern Arizona. Like many warblers, it cocks its tail and tends to remain hidden in the dense undergrowth of woodlands. This warbler's tail is unusually long and slender and is waved in the manner of a gnatcatcher.



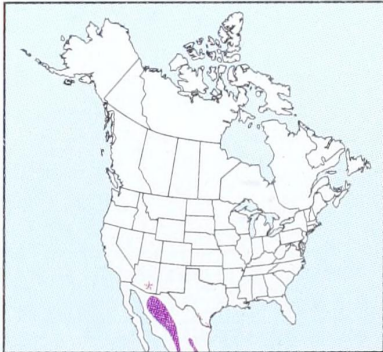
- **SONG** Begins with *chip-chip-chip*, ending with melodic trilling, changing in pitch once or twice. Has call of *tik*, sometimes doubled or, if agitated, run into a rapid series.
- **BEHAVIOR** Solitary or in pairs. Pairs may remain together throughout the year. Found in dense brush or second growth, often close to the ground. Somewhat sluggish and deliberate in its movements. Cocks its very long tail above back, anywhere from a 45-degree angle to almost vertical, and wags it. Gleans limbs and foliage for insects and spiders.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation period and time young remain in nest undetermined, as are roles of sexes in nesting and number of broods per year.
- **POPULATION** Casual to accidental in southwestern US in brushy foothills and mountain canyons. Accidental in southern

Texas. Generally common in its native range.

- **CONSERVATION** Preference for disturbed or brushy and second-growth habitats keeps it relatively safe from habitat loss. Infrequent host to cowbird parasitism.

Similar Birds

The combination of face pattern, yellow on underparts, and long slender tail cocked above body easily separate it from any North American warblers in US range.



Flight Pattern

Somewhat weak fluttering direct flight of short duration with rapidly beating wings.

Nest Identification

Shape Location

Grasses and plant fibers, domed, with lining of finer materials • sheltered by large rock, bank, or clump of grass • built by female • 2-4 white eggs, with reddish brown flecks and splotches, concentrated at larger end; 0.69 x 0.53 inches.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 0.4 ounce
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DATE _____ TIME _____ LOCATION _____

Family PARULIDAE	Species <i>Icteria virens</i>	Length 7.25 inches	Wingspan 9–10 inches
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YELLOW-BREASTED CHAT

The largest North American warbler is named for its song, which resembles bizarre loud chattering. The large size, stocky body, thick bill, and long tail are unusual for a warbler, yet DNA studies confirm its taxonomic placement within this family. Unlike other warblers, it often sings at night in addition to its daytime vocalizations, a trait shared with some of the mimic thrushes. The female is similar to the male but has gray lores.

• **SONG** A clashing mixture of prattles, whistles, catlike sounds, clucking, screeching, and *caw* notes, both musical and harsh. Pacing is slow, hesitant, and unwarbler-like, more like a mockingbird or thrasher. Has the lowest voice of any American wood warbler. Some songs given in hovering mothlike display flights. Call notes are harsh *cheow* or nasal *hair*.

• **BEHAVIOR** Solitary or in pairs. Acts more like a mockingbird than a warbler. Shy, skulking, and secretive. Often remains hidden in thick foliage. Best seen when male sings from an exposed perch or is displaying. Display flight lasts several seconds, head held high, tail pumping, legs dangling, and singing all the while. Forages low in dense brushy shrubbery and sometimes on the ground, gleaning insects, larvae, berries, and fruits. The only warbler known to hold food in its feet.

• **BREEDING** Monogamous. Solitary nester or small colonies.

• **NESTING** Incubation 11–12 days by female. Altricial young brooded by female; stay in nest 8–11 days, fed by both sexes. 2 broods per year.

• **POPULATION** Common in dense thickets, brush, or scrub, especially along swamp margins and streams. Significant decline over much of its eastern range.

• **CONSERVATION** Neotropical migrant. Common host to Brown-headed Cowbird. Vulnerable to habitat loss due to land development and clearing, urbanization, and natural succession from old fields to maturation of forests.

Flight Pattern



Weak direct flights of short duration. In singing display, flies with legs dangling and wings flapping limply.

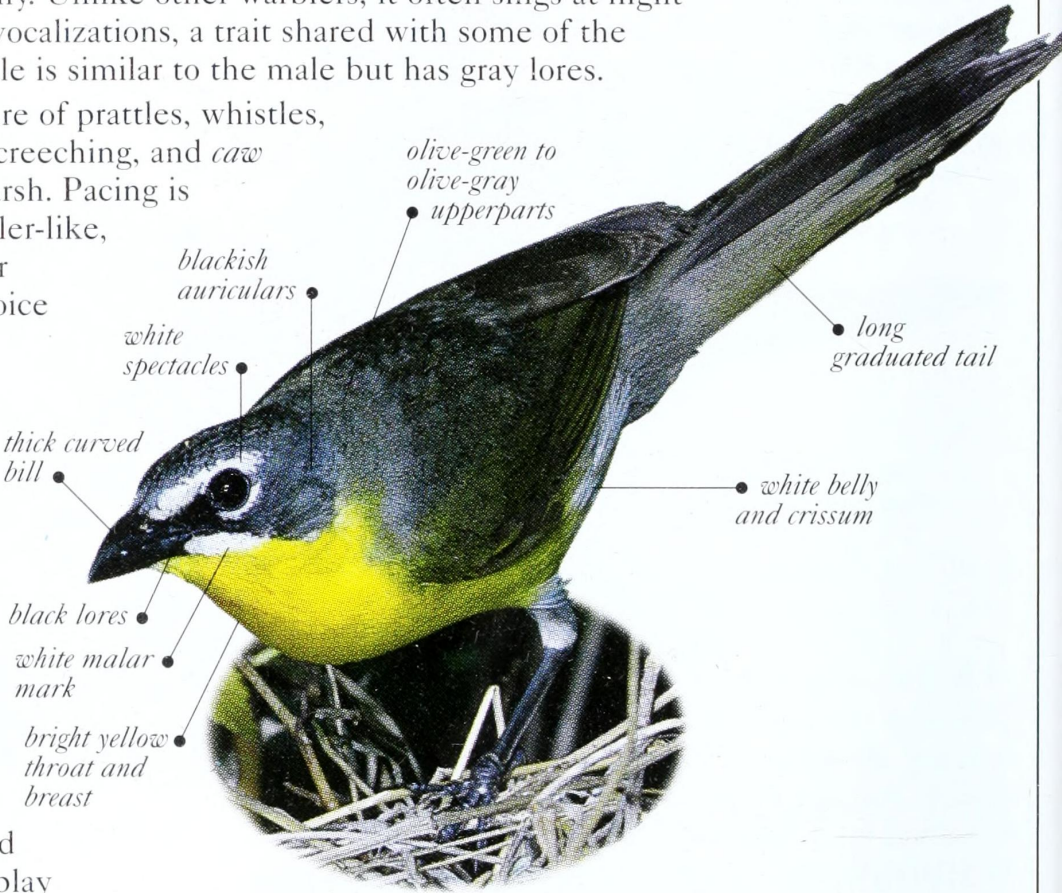
Nest Identification

Shape 

Location 

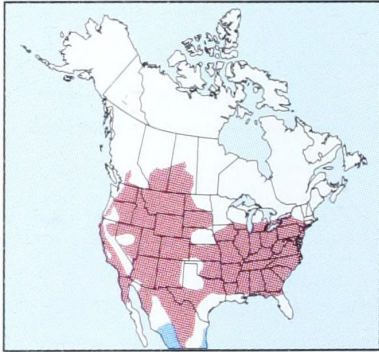
Dried stems, leaves, grasses, and bark pieces, lined with soft grasses, stems, and leaves • in bush, vines, or thorny shrub, 2–8 feet above ground • built by female • 3–6 white or creamy white eggs, with flecks of rust or violet, concentrated at larger end; oval, 0.86 x 0.67 inches.

Plumage Sexes similar	Habitat   	Migration Migratory	Weight 0.9 ounce
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Similar Birds

No similar species in North America.

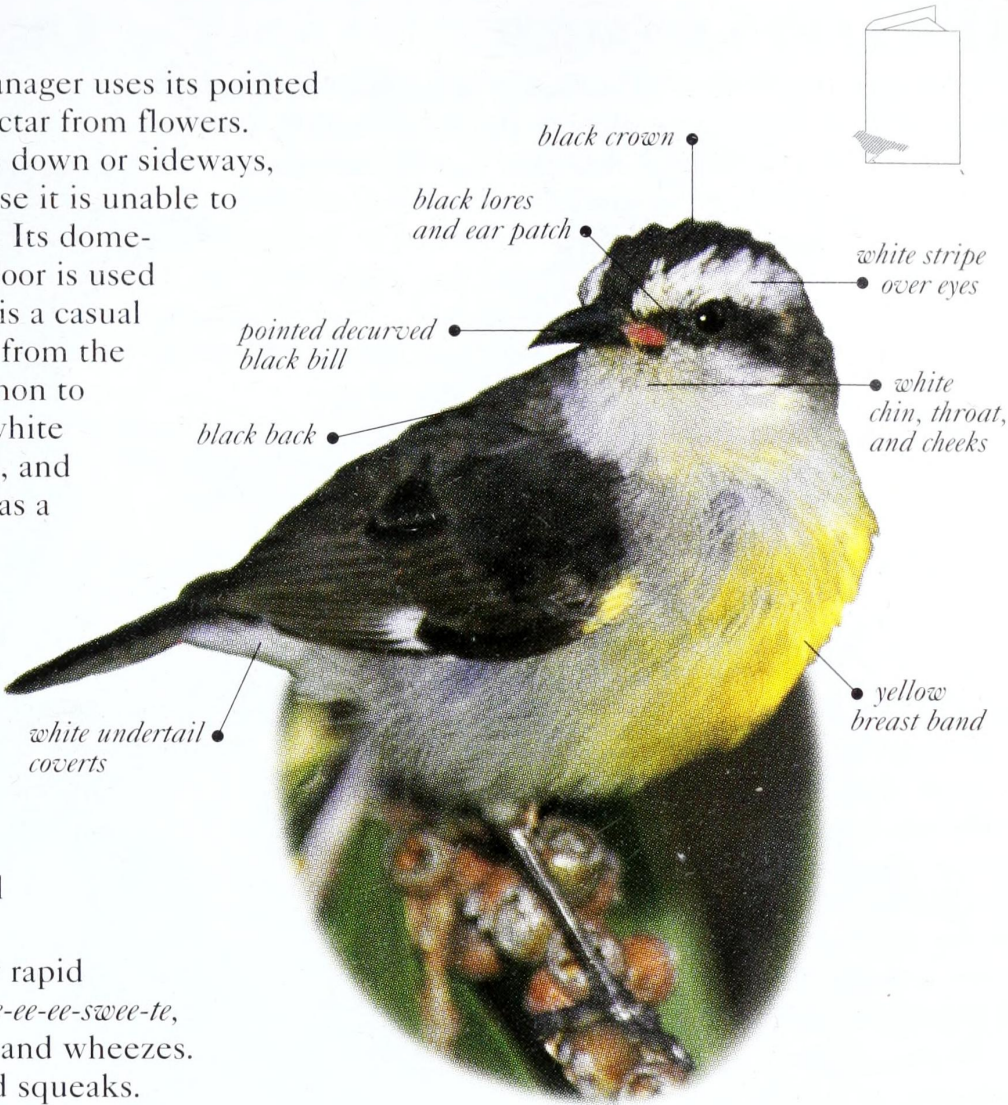


Family COEREBIDAE	Species <i>Coereba flaveola</i>	Length 4.5 inches	Wingspan 7.25 inches
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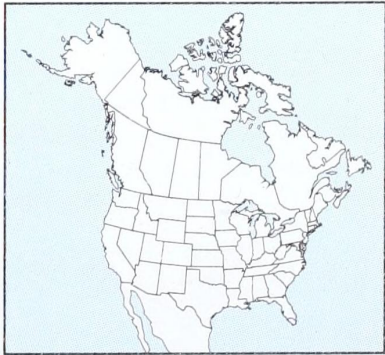
BANANAQUIT

This close cousin of the tanager uses its pointed bill and tongue to draw nectar from flowers. Often seen feeding upside down or sideways, it clings to branches because it is unable to hover like a hummingbird. Its dome-shaped nest with its side door is used in all seasons as a roost. It is a casual visitor to southern Florida from the Bahamas, where it is common to abundant. Note the bold white eyebrow, the decurved bill, and the yellow breast. It also has a yellow rump patch and a white-tipped outer tail. In flight the white patch at the base of the flight feathers flashes when the wings are flicked. The juvenile is similar to the adult but dingy and has a yellowish white supercilium and dull yellow rump.

- **SONG** A hoarse breathy rapid high-pitched chattering *zee-ee-ee-swee-te*, interspersed with squeaks and wheezes. Call notes are high-pitched squeaks.
- **BEHAVIOR** Solitary or in pairs. Tame. Uses long bill and tongue to find food in flowers. Clings in various positions to twigs, leaves, and flowers. Creeps along branches and foliage. Eats mostly nectar. Also eats insects and occasionally fruit if flowers are not available. In Caribbean often becomes bold enough to take sugar from outdoor café tables or enter houses to steal sugar. Often constructs smaller nests for roosting, with entrances near the bottom.
- **BREEDING** Monogamous. Solitary nester.
- **NESTING** Incubation 12–14 days by female only. Young altricial; brooded by female; stay in nest 15–18 days, fed by both sexes. At least 3 broods per year.



Similar Birds
None in North America.



Flight Pattern

Weak fluttering flight on rapidly beating wings. May alternate wing strokes with brief period of wings pulled to sides.

Nest Identification

Shape

Location

- **POPULATION** Casual in North America in the southern Florida area.
- **FEEDERS AND BIRDHOUSES** Will drink nectar from feeder bottles and will nest in man-made houses.

Plant fibers and leaves, with side door near top • far out on branch, in shrub, on wire, or in building, 2–30 feet above ground • built by both sexes • 3 cream to buff eggs, dotted with brown; oval to short oval, 1.6 x 0.5 inches.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 0.3 ounce
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DATE _____ TIME _____ LOCATION _____

Family THRAUPIDAE	Species <i>Piranga flava</i>	Length 8 inches	Wingspan 12.75 inches
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HEPATIC TANAGER

Named for the liver-red plumage of the male, this tropical bird has a small summer range in the southwestern mountain forests of North America. Not shy around humans, the male perches in tall trees to sing a sing-song series of musical phrases, similar to those of the Black-headed Grosbeak, but faster. The adult male retains his red plumage throughout the year. The combination of dark bill and dusky gray auriculars in both sexes are good field marks to separate them from other tanager species. Juveniles are similar to females but have paler underparts with buffy wing bars and are heavily streaked with brown.

• **SONG** Clear bold musical phrases in back-and-forth sing-song pattern. Call note is a loud *chip* or *chuck*, similar to the Hermit Thrush.

• **BEHAVIOR** Solitary or in pairs. Often joins mixed-species foraging flocks after the nesting season. Forages for food in upper foliage of tall trees where it gleans from branches, stems, and leaves. Sometimes catches insects in flight. Eats insects and fruit. Sings often and is often detected by calls or song. Restless and active. Often flies considerable distances, moving rapidly from one tree to the next or traveling all the way across mountain canyons.

• **BREEDING** Monogamous. In courtship display male moves head back and forth and lifts bill to sky, showing off his bright throat.

• **NESTING** Breeding biology poorly known. Estimated incubation 13–14 days by female. Young altricial; brooded by female; stay in nest estimated 13–15 days, fed by both sexes. 1 brood per year.

• **POPULATION** Uncommon to fairly common in pine and pine-oak in mountain canyons. Accidental on Gulf Coast.

• **CONSERVATION** Neotropical migrant. Rare host to cowbird parasitism.



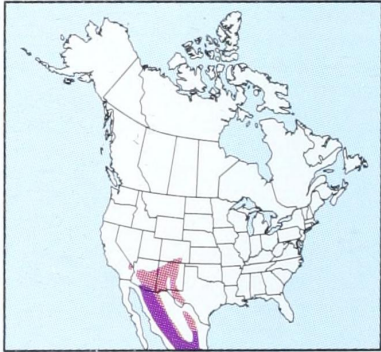
MALE



FEMALE

Similar Birds

-  **♂ SUMMER TANAGER**
Large yellow-brown bill; lacks grayish cheek patch • male displays brighter reds.
-  **♀**



Flight Pattern	
	
Relatively swift direct flight on rapidly beating wings.	

Nest Identification	
Shape 	Location 

Forbs, grasses, stems, and flower petals with lining of soft grass • in fork, toward end of limb, 15–50 feet above ground • built mostly by female, but male may bring materials • 3–5 bluish greenish eggs with brownish markings, often wreathed; oval to short oval, 1.0 x 0.75 inches.

Plumage Sexes differ	Habitat 	Migration Migratory	Weight 1.3 ounces
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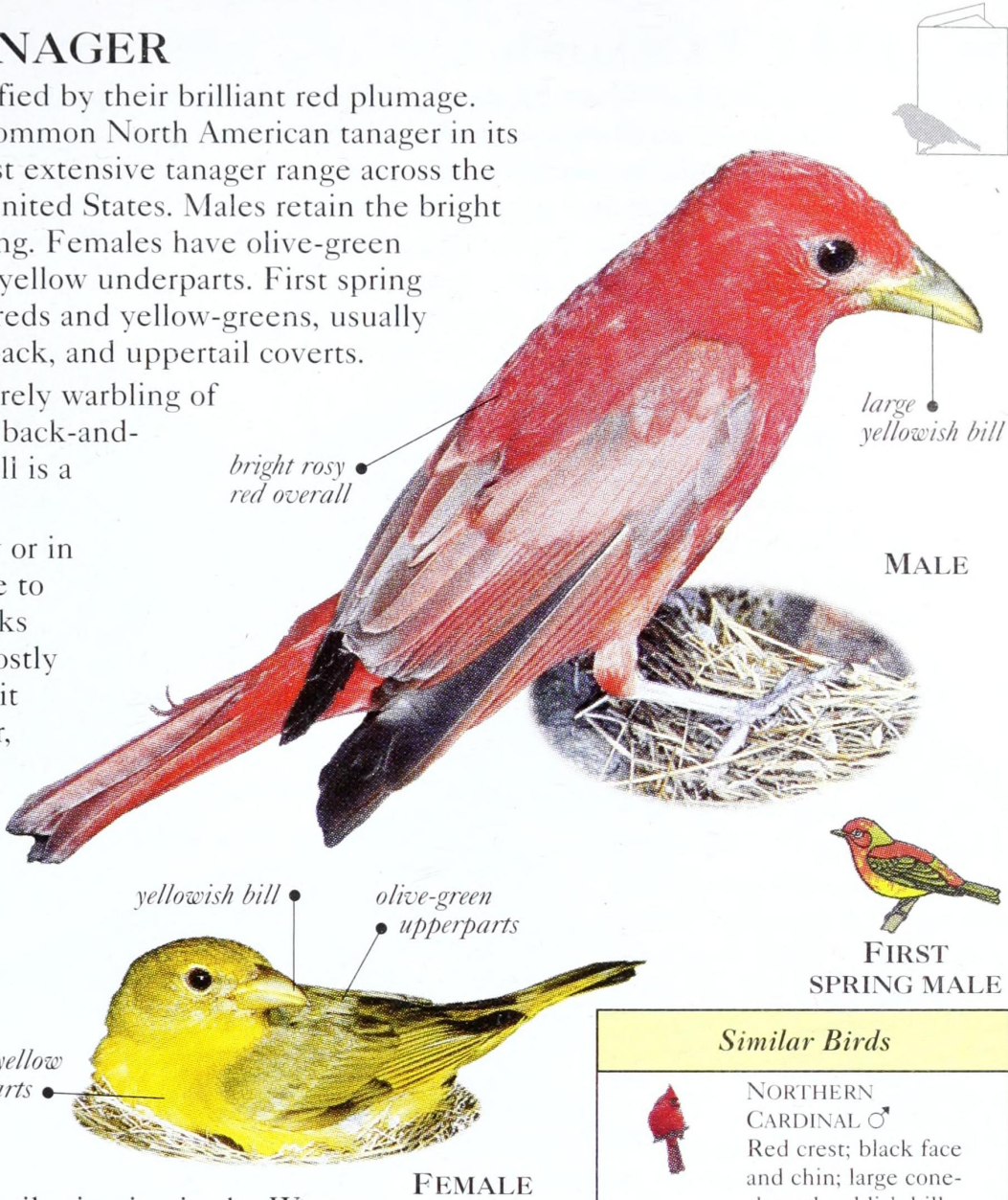
DATE _____ TIME _____ LOCATION _____

Family THRAUPIDAE	Species <i>Piranga rubra</i>	Length 7.75 inches	Wingspan 11–12 inches
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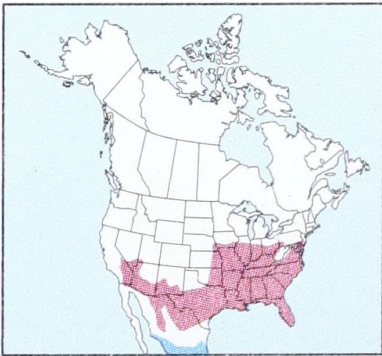
SUMMER TANAGER

Males are easily identified by their brilliant red plumage. This bird is the most common North American tanager in its range, which is the most extensive tanager range across the eastern and southern United States. Males retain the bright red plumage all year long. Females have olive-green upperparts and orange-yellow underparts. First spring males are a mixture of reds and yellow-greens, usually with red on the head, back, and uppertail coverts.

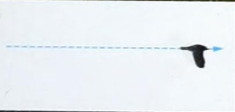
- **SONG** Melodic leisurely warbling of 5–7 phrases; sing-song, back-and-forth, and robinlike. Call is a repeated *pick-a-tuck*.
- **BEHAVIOR** Solitary or in pairs. Forages at middle to high levels in trees; picks food off leaves. Eats mostly bees and wasps, which it takes expertly in midair, and often raids wasp nests and beehives. Also eats other insects, grubs, caterpillars, and fruit. Often found near water, including bottomland hardwood and riparian forest, but also pine-oak forest in the East; primarily riparian in the West.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 11–12 days by female. Altricial young brooded by female; leave nest at 13–14 days, fed by both sexes. 1–2 broods per year.
- **POPULATION** Common in deciduous and mixed conifer-deciduous forests, especially oaks. Some declines in the East.



Similar Birds	
	NORTHERN CARDINAL ♂ Red crest; black face and chin; large cone-shaped reddish bill.
	HEPATIC TANAGER ♂ Duller darker red color; blackish bill; grayish cheek patch; gray wash on flanks, back, and wing coverts.
	♀



Flight Pattern



Swift direct flight with quick wing strokes. Sallies forth to take insects on the wing.

Nest Identification

Shape  Location  

Bark pieces, forbs, grass, and leaves, with lining of soft grasses • far out on limb, 10–35 feet above ground • built by female • 3–5 light blue or green eggs, marked with browns, occasionally wreathed or capped; oval to short oval, sometimes long oval, 0.9 x 0.75 inches.

Plumage Sexes differ	Habitat  	Migration Migratory	Weight 1.0 ounce
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DATE _____ TIME _____ LOCATION _____

Family THRAUPIDAE	Species <i>Piranga olivacea</i>	Length 7 inches	Wingspan 11–12 inches
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SCARLET TANAGER

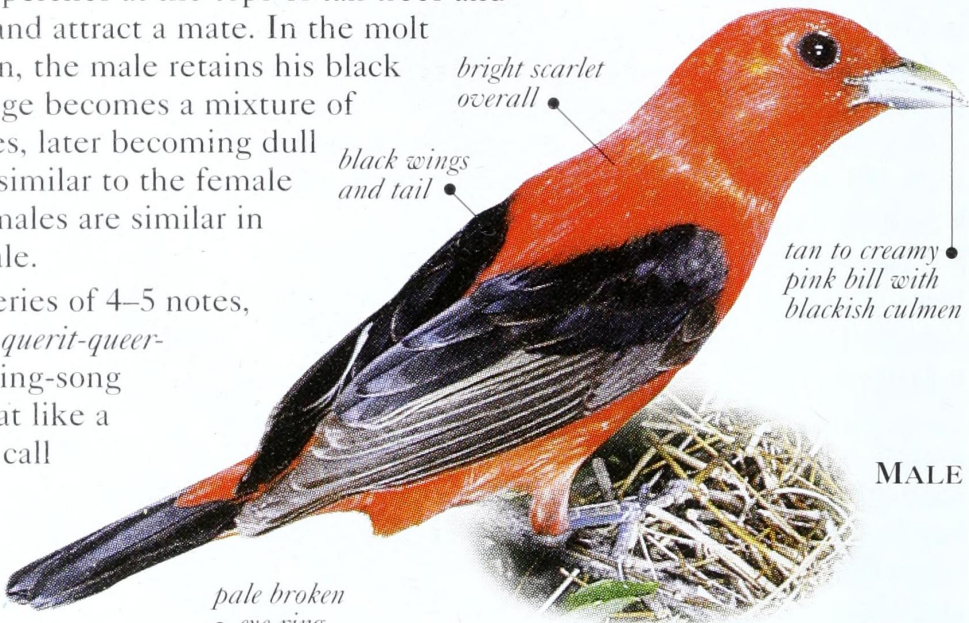
No other bird in North America has the breeding male’s unique plumage of a rich scarlet body with black wings and tail. When the male arrives on the breeding grounds, he perches at the tops of tall trees and sings to defend his territory and attract a mate. In the molt following the breeding season, the male retains his black wings and tail, but his plumage becomes a mixture of green, yellow, and red patches, later becoming dull green and yellow, appearing similar to the female bird. Juveniles and first fall males are similar in appearance to the adult female.

• **SONG** A breathy course series of 4–5 notes, somewhat rapidly delivered, *querit-queer-querit-querit-queer*. Pattern is sing-song and back-and-forth, somewhat like a robin with a sore throat. Has call of *chip-burr*.

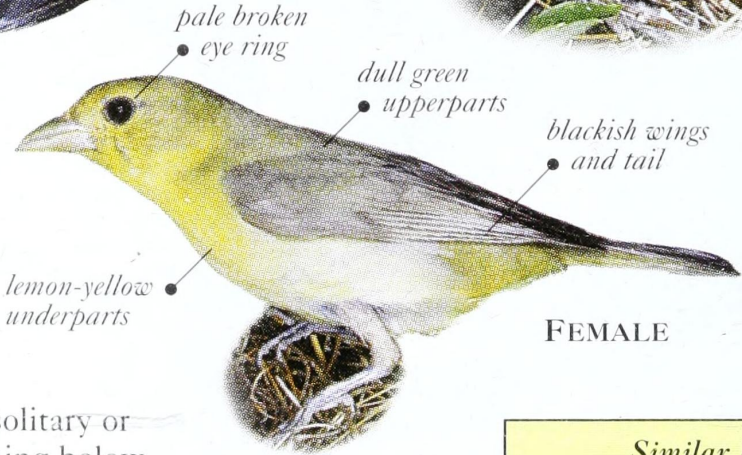
• **BEHAVIOR** Solitary or in pairs. May forage for food on ground but more often high in tops of trees. Eats insects, including wasps, bees, and caterpillars. Also takes berries and fruit. Gleans food from branches and foliage and frequently hawks insects. Frequents drier forests, often pine and pine-oak.

- **BREEDING** Monogamous; solitary or in pairs. Male displays by perching below female, opening his wings and showing off his scarlet back.
- **NESTING** Incubation 13–14 days by female. Young altricial; brooded by female; stay in nest 9–11 days, fed by both sexes. 1 brood per year.
- **POPULATION** Fairly common in deciduous and mixed conifer-hardwood forests. Some recent declines. Casual in West.
- **FEEDERS** Will come to feeders for mixture of bread crumbs, cornmeal, and peanut butter.

• **CONSERVATION** Neotropical migrant. Vulnerable to loss of habitat and forest fragmentation, as it requires large areas of forest for breeding. Fairly common host to cowbird parasitism.



MALE



FEMALE

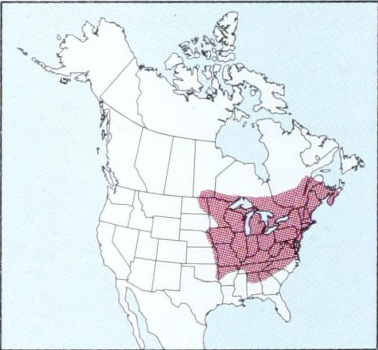


FALL MALE

Similar Birds



WESTERN TANAGER
Male has additional yellow upper wing bar
• females and winter males are similar to their counterparts but have white wing bars.



Flight Pattern	
Swift rapid flight with quick wing strokes. Sallies forth to take insects in flight.	

Nest Identification	
Shape	Location

Forbs, grasses, sticks, rootlets, and twigs, with lining of soft grasses and conifer needles • far out on limb, 5–70 feet above ground • built by female • 2–5 bluish greenish eggs, marked with brown, often wreathed; oval to short oval, 0.9 x 0.7 inches.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 1.0 ounce
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DATE _____ TIME _____ LOCATION _____

Family THRAUPIDAE

Species *Piranga ludoviciana*

Length 7.25 inches

Wingspan 11–12 inches

WESTERN TANAGER

One of only two North American tanagers with distinct wing bars, this bird frequents the coniferous forests of the western mountain region, where it is one of the most colorful species present. It has on rare occasions hybridized with its close cousin, the Scarlet Tanager. In the molt after the breeding season, the male's red head fades to a yellowish color with fine streaking on the crown. The female's olive-gray back contrasts sharply with the yellow-green rump, uppertail coverts, and nape. Juveniles resemble females but with head and body streaked dark brown.

• **SONG** A hoarse vireo-like series of 3–4 phrases, *che-ree, che-ree, che-weeu, cheweeu*. Call is *pit-ick, pri-tick-tick*.

• **BEHAVIOR** Solitary or in pairs. Forages in trees and on ground, gleaning food from bark, limbs, foliage, and soil. Eats fruit and insects, including wasps and bees. Hawks insects in flight. Bathes in birdbaths. Frequent singer often first detected by vocalizations. In postbreeding season, often joins mixed-species foraging flocks.

• **BREEDING** Monogamous. Solitary.

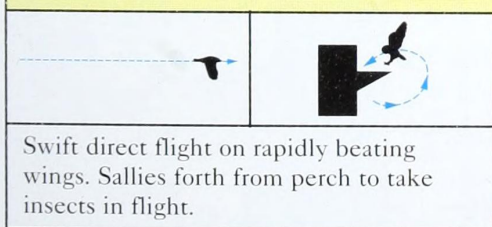
• **NESTING** Incubation 13 days by female. Altricial young brooded by female; stay in nest 13–15 days, fed by both sexes. 1 brood per year.

• **POPULATION** Fairly common in coniferous and pine-oak forests, particularly in mountain canyons. Casual in East in winter.

• **FEEDERS** Fresh oranges, dried fruit, bread crumbs.

• **CONSERVATION** Neotropical migrant. Uncommon cowbird host. Vulnerable to loss of habitat and forest fragmentation.

Flight Pattern



Nest Identification

Shape Location

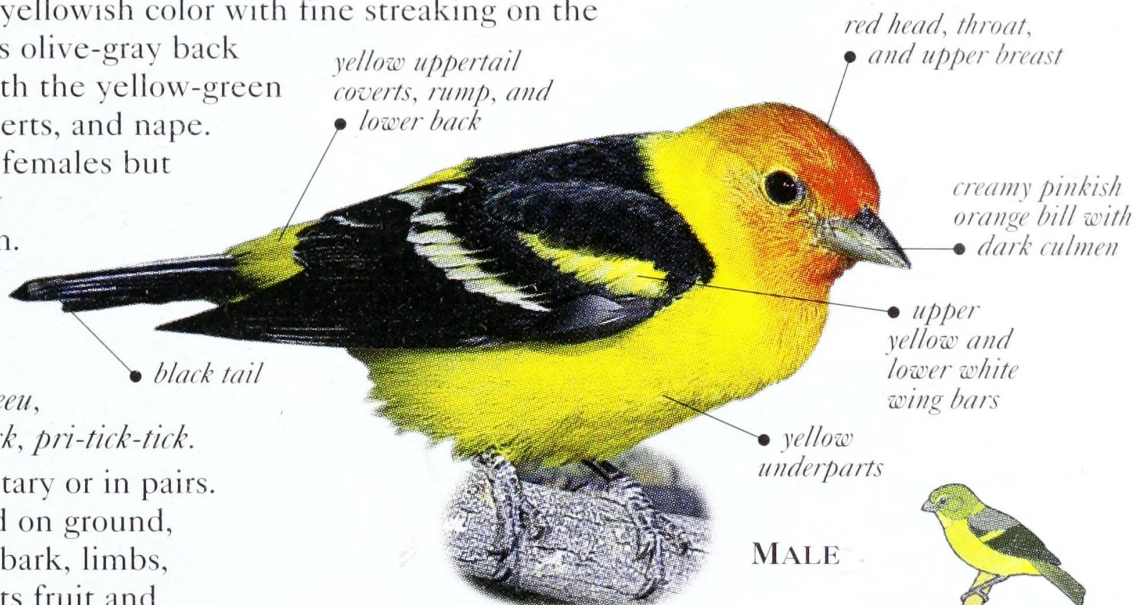
Rootlets, sticks, and moss, with lining of plant down and mammal hair • far out on branch, 6–65 feet above ground • built mostly by female • 3–5 bluish eggs, marked with browns, often wreathed; oval to short subelliptical, 0.9 x 0.66 inches. -

Plumage Sexes differ

Habitat

Migration Migratory

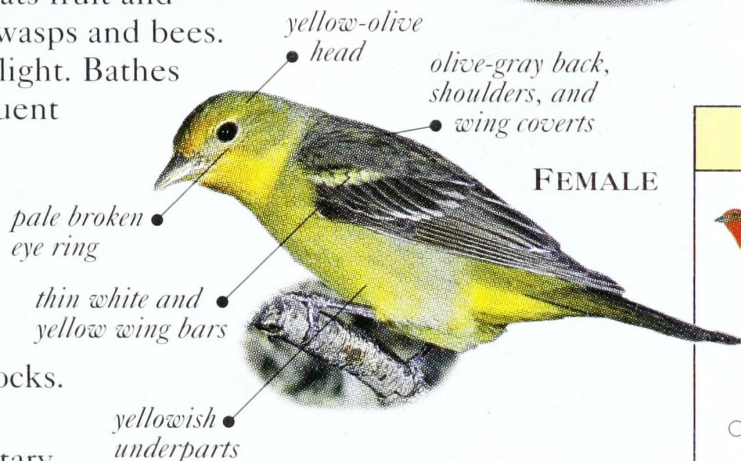
Weight 1.0 ounce



MALE



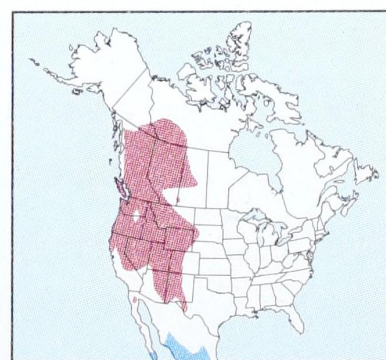
WINTER MALE



FEMALE

Similar Birds

- FLAME-COLORED TANAGER** ♀
Dark bill; dusky auriculars; bolder whitish wing bars; white tail corners; darkly streaked back.
- SCARLET TANAGER** ♂
Females and winter males are similar to their counterparts but have olive backs and lack the wing bars.
- ♀



DATE _____ TIME _____ LOCATION _____

Family THRAUPIDAE	Species <i>Spindalis zena</i>	Length 5.8–6.75 inches	Wingspan 11–12 inches
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WESTERN SPINDALIS

Formerly called the Stripe-headed Tanager, this colorful bird is a native of the West Indies. Occasionally, especially in the summer months, these birds wander to southeastern Florida and the Florida Keys. Its habit of perching and remaining well inside the canopy, coupled with its high thin notes, which are not readily noticed, make this species difficult to observe and easily overlooked. The juvenile is similar to the female, with a pale lemon belly and undertail coverts.

• **SONG** A high thin weak trilling *zee'-tit-zee'-tittit-zee'*. Song increases in intensity and is quite melodious when heard from nearby. Call is *seeip* or *tsee*.

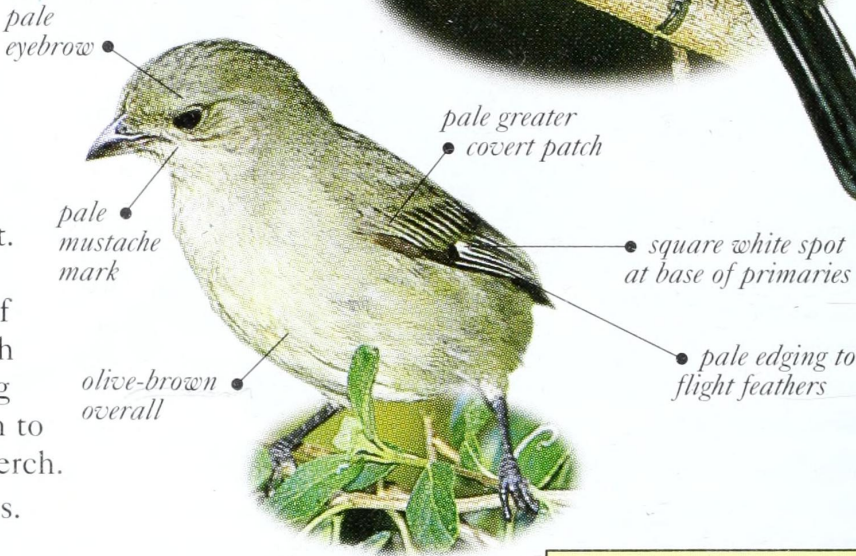
• **BEHAVIOR** Solitary or in pairs. Sometimes in small groups, especially in fruiting trees. Forages for food in foliage of trees and shrubs. Eats insects and fruit. Male has singing display flight; he begins at the top of a tree and circles around with slowly beating wings, singing throughout, then dives down to the same perch or another perch.

• **BREEDING** Monogamous. Solitary nester.

• **NESTING** Breeding biology poorly known. Estimated incubation 12–14 days by female. Altricial young brooded by female; stay in nest estimated 12–15 days, fed by both sexes. 1 brood per year.

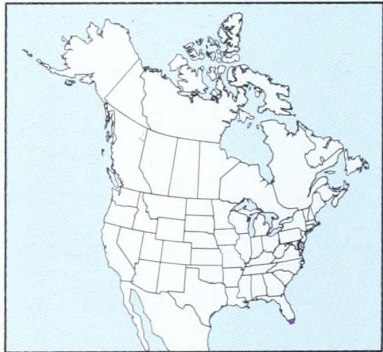


MALE



FEMALE

Similar Birds
None in North American range.



Flight Pattern
Swift direct flight on rapidly beating wings.

Nest Identification	Twigs and plant material, with lining of finer materials • on branch of tree • built by female • 2–3 bluish white eggs, with flecks of brown; oval to short oval, 0.9 x 0.65 inches.
Shape	Location

Plumage Sexes differ	Habitat	Migration Nonmigratory	Weight 0.7 ounce
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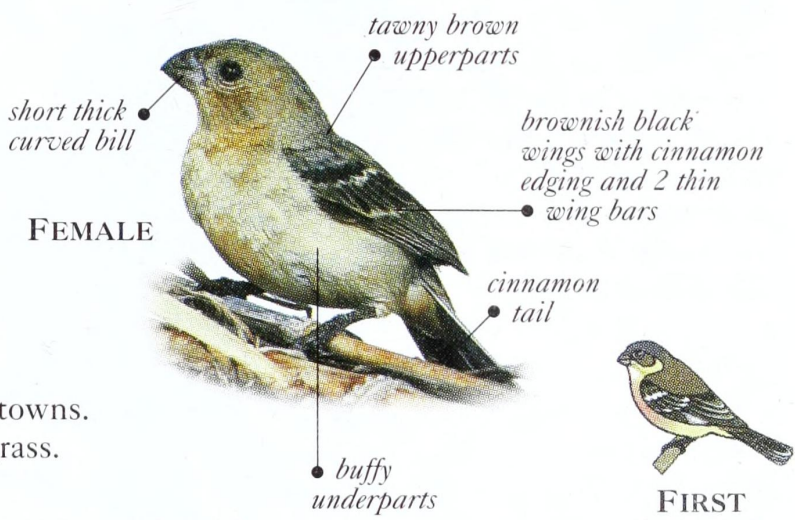
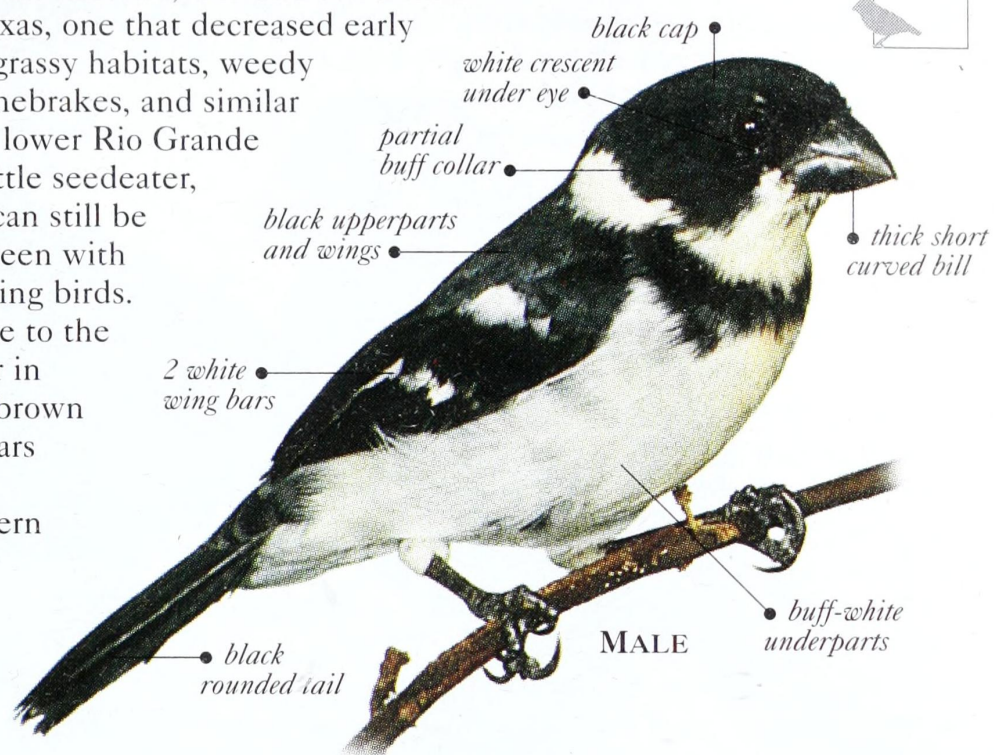
DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Sporophila torqueola</i>	Length 4.5 inches	Wingspan 8 inches
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WHITE-COLLARED SEEDEATER

A native of Mexico and Central America, this bird has a small nesting range in southern Texas, one that decreased early in the 20th century. In local grassy habitats, weedy fields and overgrown lots, canebrakes, and similar habitats near the river in the lower Rio Grande Valley, small groups of this little seedeater, with its stubby swollen bill, can still be found. It can sometimes be seen with large flocks of other seed-eating birds. In flight it shows a white base to the primaries. Females are duller in color with buffy underparts, brown upperparts, and paler wing bars and lack the collar and cap. Juvenile males have the pattern of the males with the coloration of the females.

- **SONG** A 2-part song with first notes high-pitched, followed by series of lower notes, *sweet sweet sweet wit-wit-wit-wit*, often ending in a buzzy trill. Call is a high-pitched *wink*.
- **BEHAVIOR** In pairs or small groups. More gregarious after the breeding season, forming flocks and often foraging with other species. Eats seeds and insects. Males often sing from exposed perches on weed stalks, cane, fences, and utility wires. Some populations found in overgrown weedy and grassy lots in small towns. Frequents marshes with dense stands of grass.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 13 days by female. Young altricial; brooded by female; leave nest at 9–11 days, fed by both sexes. 1–2 broods per year.



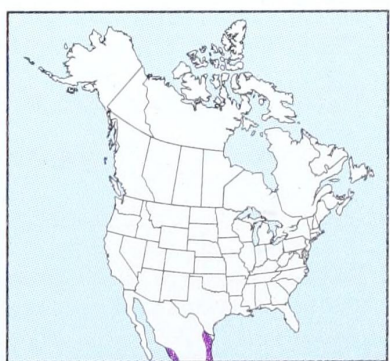
Flight Pattern

Weak bouncy fluttering flight, with series of rapid wing strokes alternating with wings pulled to sides.

Nest Identification

Shape	Location

- **POPULATION** Rare and local in lower Rio Grande Valley of Texas.
- **CONSERVATION** Declines with loss of habitat due to land clearing, agriculture, and development. Uncommon host to cowbird parasitism.



Sticks, rootlets, plant stems, and grass, with lining of plant down and mammal hair • in fork of bush or small tree or in weeds, 3–5 feet above ground • built by female • 2–4 pale blue to pale gray eggs, with brown markings, concentrated at larger end; subelliptical toward elliptical oval, 0.64 x 0.5 inches.

Plumage Sexes differ	Habitat	Migration Nonmigratory	Weight 0.3 ounce
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DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Tiaris olivacea</i>	Length 4.25 inches	Wingspan 6.25 inches
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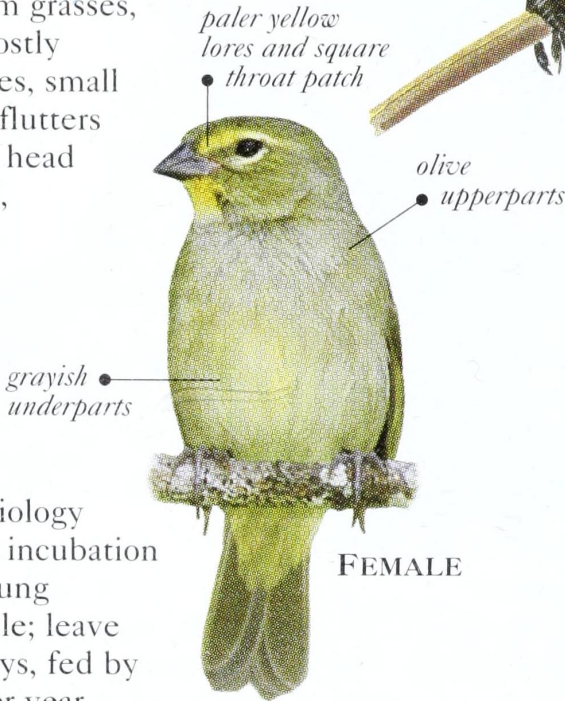
YELLOW-FACED GRASSQUIT

On rare occasions, stragglers of this Mexican and Caribbean species have found their way to North America and have been spotted in southern Florida and southern Texas. This tiny bird frequents open fields, brushy thickets, and shrubs rather than trees. The olive plumage and yellow face markings are distinctive. Females and juveniles have less yellow on the throat and above the eye and lack the black on the face and breast.

- **SONG** A buzzy high-pitched insectlike trill, *siiiiitiiiiir*. Call is high sharp *tsi* or *sik*.
- **BEHAVIOR** In pairs or small groups. Forms flocks to forage after the breeding season, often with other species. Forages by scratching in ground for food; gleans seeds from grasses, weeds, and trees. Eats mostly seeds but also some berries, small fruits, and insects. Often flutters up and grabs a grass seed head and pulls it to the ground, where it eats it like corn on the cob; or rides a grass stalk to the ground and stands on it, eating the seed head.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Breeding biology poorly known. Estimated incubation 10–13 days by female. Young altricial; brooded by female; leave nest at estimated 9–12 days, fed by both sexes. 1–2 broods per year.



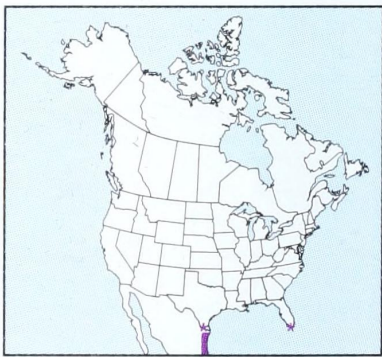
MALE



FEMALE

Similar Birds

-  **BLACK-FACED GRASSQUIT**
Lacks yellow throat, yellow sub-eyebrow, and crescent below eye
• males have blackish underparts; black head, tail, and wings; and dark olive upperparts
-  • females and juveniles have olive-brown upperparts, gray heads, and pale grayish white underparts.



Flight Pattern



Weak fluttering bouncy flight with alternating series of rapid wing beats followed by wings pulled to sides; repeated.

Nest Identification

Shape  Location   

- **POPULATION** Accidental in North America in southern Texas and southern Florida.
- **CONSERVATION** Not of special concern. Populations do well in disturbed areas with grasses and weed cover.

Rootlets, grasses, and twigs, with lining of finer materials • set in vines, sheltered by bank, in grasses, or low in shrubbery • built by female • 2–4 bluish white eggs, flecked with gray and brown; subelliptical to oval, 0.7 x 0.5 inches.

Plumage Sexes differ	Habitat   	Migration Nonmigratory	Weight 0.3 ounce
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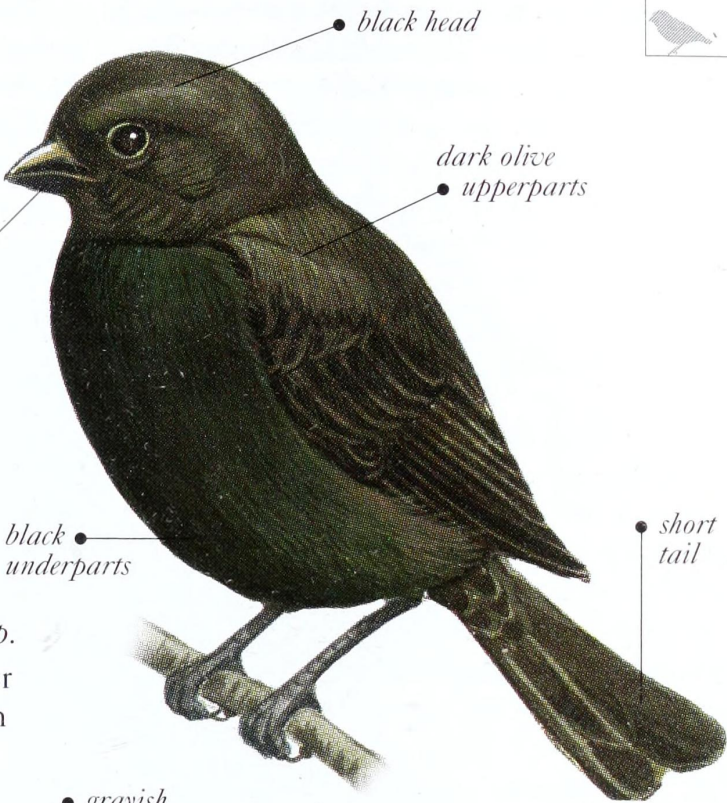
DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Tiaris bicolor</i>	Length 4.5 inches	Wingspan 7 inches
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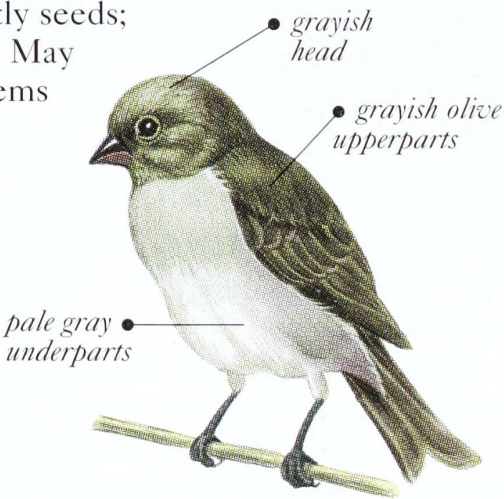
BLACK-FACED GRASSQUIT

This tiny bird, common in the West Indies, sometimes visits southern Florida, although these may be escaped cage birds. It frequents open areas of tall grasses and scrub, gardens, fields, undergrowth, and roadsides – almost anywhere it can find small grass seeds. The sooty appearance of the small dark male is unlike that of any North American bird within its vagrant range into southern Florida. Although this small bird is unadorned by stripes, spots, or showy flash marks and is small, unobtrusive, and easily overlooked, it is nonetheless distinctive. Juveniles resemble females.

- **SONG** An insectlike *tik-tink-tink-tzeeeeeee*, which is often repeated. Has a soft call of *teep*.
- **BEHAVIOR** In pairs or small groups. After breeding season forms larger flocks and often joins mixed foraging flocks. Forages in grass and shrubbery. Eats mostly seeds; also fruits, berries, and insects. May obtain seeds by riding grass stems to ground, standing on them, and stripping the seeds from the seed heads, or may leap from ground to pull seed head down to eat.
- **BREEDING** Monogamous. Small colonies. During courtship, male displays by flying with vibrating wings and singing.
- **NESTING** Breeding biology poorly known. Estimated incubation 10–13 days by female. Altricial young brooded by



MALE

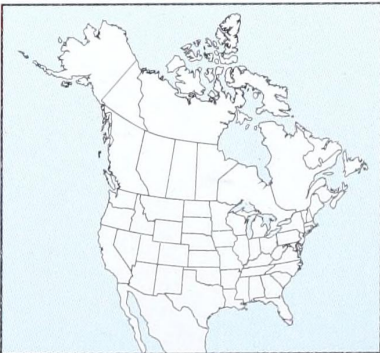


FEMALE

Similar Birds



YELLOW-FACED GRASSQUIT
Golden yellow throat, eyebrow, and crescent below eye; olive body; black on face and upper belly only • females and juveniles are olive overall with yellow restricted to lores and throat.



Flight Pattern

Bouncy flight, weak and fluttering. Rapid wing beats alternating with wings being pulled to body.

Nest Identification

Shape

Location

female; leave nest at estimated 9–12 days, fed by both sexes. 1–2 broods per year.

- **POPULATION** Casual in North America to southern Florida. Populations do well in disturbed habitats in grasses and brushy growth.

Grass, rootlets, and twigs, with lining of finer grass • low in bush, small tree, grasses, or in bank, usually less than 20 feet above ground • built by both sexes • 2–3 whitish eggs, marked at thick end with pale reddish brown; subelliptical to oval, 0.66 x 0.5 inches.

Plumage Sexes differ	Habitat	Migration Nonmigratory	Weight 0.3 ounce
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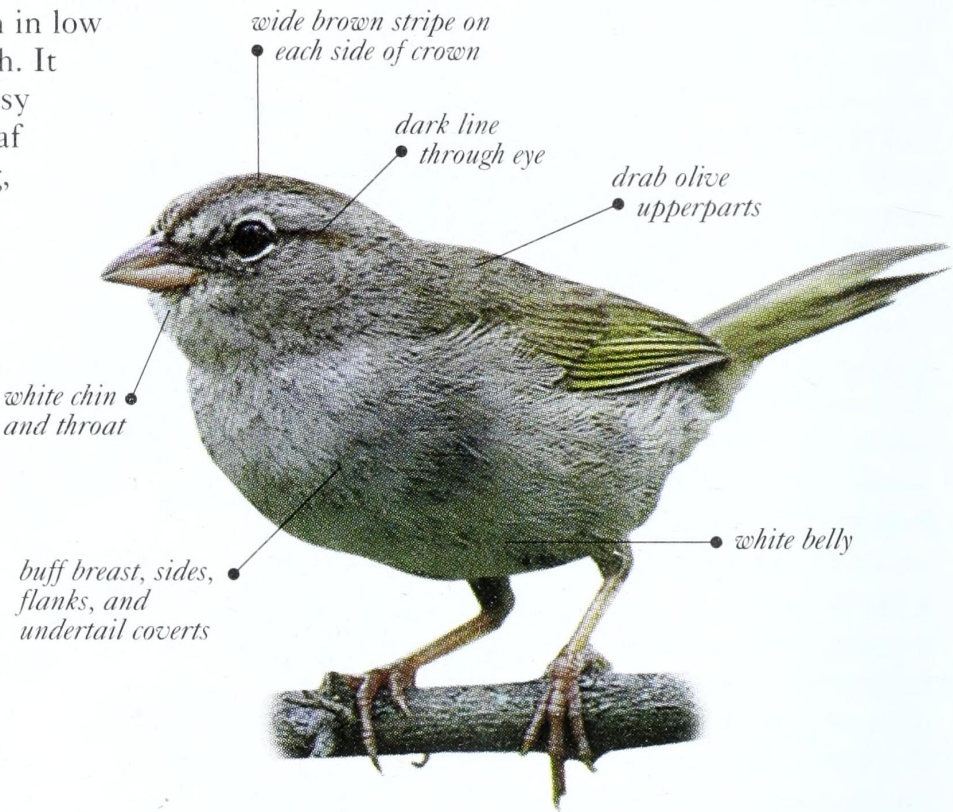
DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Arremonops rufivirgatus</i>	Length 6.25 inches	Wingspan 9 inches
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OLIVE SPARROW

A native of Mexico, this bird has a small nesting range along the lower Rio Grande Valley in southern Texas. It is difficult to spot, as it often remains hidden in low thickets and dense undergrowth. It may be first detected by its noisy towheelike scratching in the leaf litter or by its accelerating song, likened to a bouncing ball. The male sings only from a low concealed perch. Juveniles have streaked dark brown upperparts and pale buff underparts streaked with dark brown, except on the whitish belly and throat.

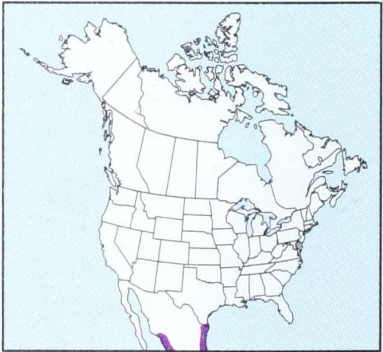
- **SONG** A repetitive accelerating series of *chip* notes, preceded by one or two introductory notes, *chip, chip, chip-chip-chip-chip-chip-chip*. Call is an insectlike *speeee* or a sharp *tsik*.
- **BEHAVIOR** Solitary or in pairs. Skulks on ground and in underbrush. Forages low in trees, bushes, and on the ground, gleaning, scratching, and picking food off ground. Eats seeds and insects.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Breeding biology poorly known; species virtually unstudied in the field. Estimated incubation 10–12 days by female. Young altricial; brooded by female; stay in nest estimated 9–11 days, fed by both sexes. 2 broods per year.
- **POPULATION** Common in thickets, especially riparian thickets, and thorn scrub, although numbers are decreasing due to loss of habitat.



Similar Birds



GREEN-TAILED TOWHEE
Larger; reddish cap; blackish line borders white mustache and separates it from white throat; gray head and underparts; lacks eye stripe.



Flight Pattern

Short flights with series of rapid wing beats alternating with wings pulled to sides for brief periods; repeated.

Nest Identification

Shape	Location
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• **CONSERVATION**
Infrequent cowbird host. Vulnerable to habitat loss because of clearing of riparian forests, brushlands, and scrublands for agriculture, grazing, and development.

Dried grasses, sticks, stems, leaves, and bark pieces, with lining of mammal hair and finer material • entrance on side • in bush or cactus, 2–5 feet above ground or on ground • built by female • 2–5 white eggs, unmarked; ovate, 0.7 inch long.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 0.8 ounce
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DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Pipilo chlorurus</i>	Length 7.25 inches	Wingspan 10 inches
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GREEN-TAILED TOWHEE

The smallest of the towhees, this bird lives in the low brush of high mountain plateaus in southwestern North America. If an intruder approaches its nest, it leaves the nest and scampers through the undergrowth like a small mammal, hoping to distract the predator. Its habit of staying on or near the ground sometimes makes it a difficult species to observe, but males do choose prominent perches to deliver their territorial songs. Juveniles are streaked overall and have buffy white underparts and brownish upperparts with two faint wing bars.

• **SONG** A varied series of chip notes, *chu-weet-chur*, *cheee-chur*, accelerating to a trill. Calls a nasal *meew* and *chink*. Somewhat similar to Fox Sparrow.

• **BEHAVIOR** Solitary or in pairs. May form loose flocks with other species in winter. Forages for food on ground by scratching under foliage with both feet simultaneously, which is called double-scratch feeding. Eats seeds, fruit, and insects and their larvae. Secretive and easily overlooked. May be detected by the loud noises it makes rustling leaves on the ground as it scratches for food.

- **BREEDING** Monogamous. Solitary.
- **NESTING** Breeding biology poorly known. Estimated incubation 11–13 days by female. Young altricial; brooded by female; stay in nest estimated 10–12 days, fed by both sexes. 2 broods per year.
- **POPULATION** Fairly common in mountain thickets, chaparral, scrublands, and riparian scrub. Casual across the East.
- **FEEDERS** Visits feeding stations that have seed, grains, and bread crumbs.

Flight Pattern



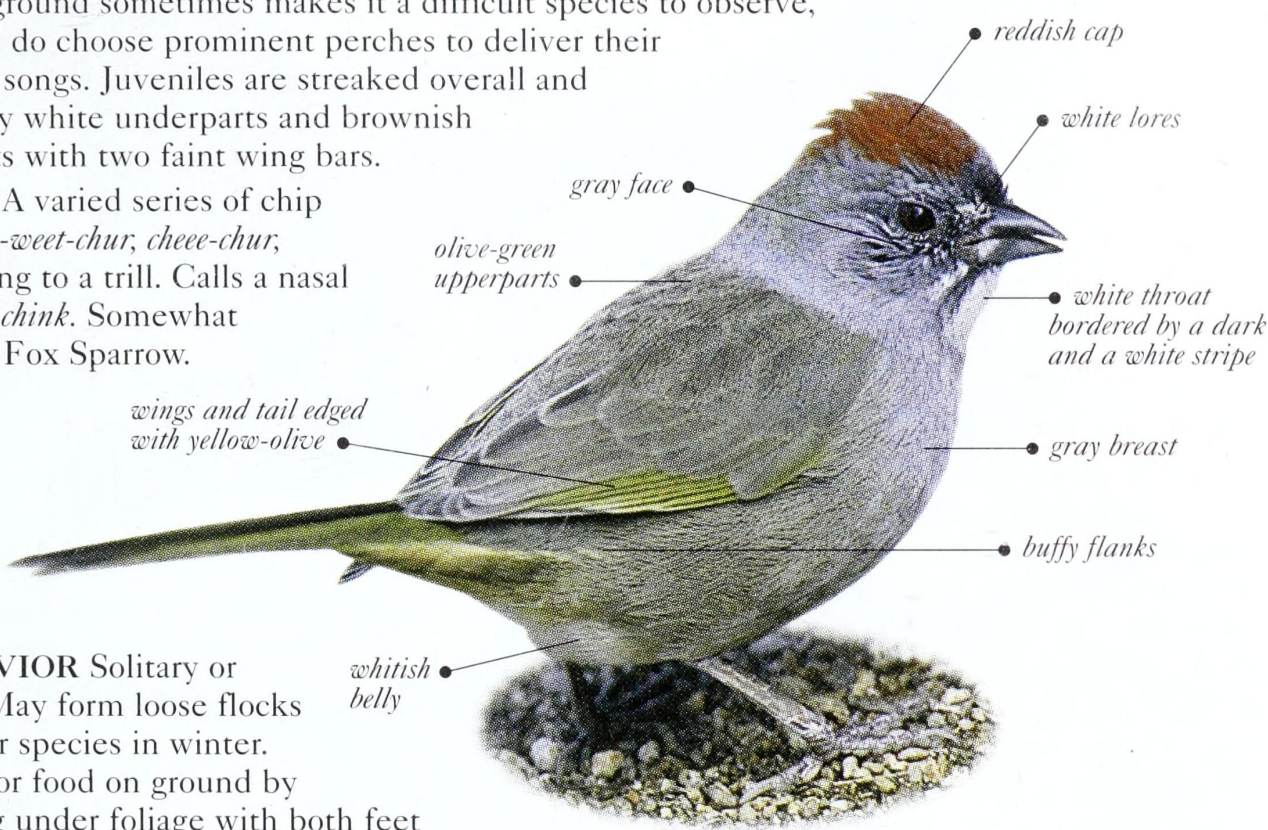
Rather rapid bouncy flight, alternating between several quick wing beats and wings pull to sides; repeated.

Nest Identification

Shape	Location
	

• **CONSERVATION** Neotropical migrant. Uncommon cowbird host. Vulnerable to habitat loss because of land clearing, grazing, and development.

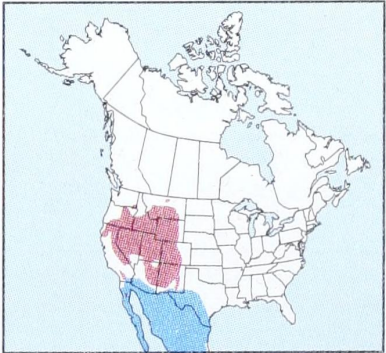
Sticks, bark chips, and grass, with lining of hair and fine plant materials • on ground, near base of bush or low in shrub or cactus, less than 28 inches above ground • built by female • 2–5 white eggs, flecked and dotted with brown; short oval, 0.9 x 0.65 inches.



Similar Birds



OLIVE SPARROW
Smaller; brown-striped crown; buff breast; dark thin eye line • inhabits lower Rio Grande Valley.



Plumage Sexes similar	Habitat  	Migration Migratory	Weight 1.0 ounce
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DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Pipilo maculatus</i>	Length 7–7.5 inches	Wingspan 10–11 inches
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SPOTTED TOWHEE

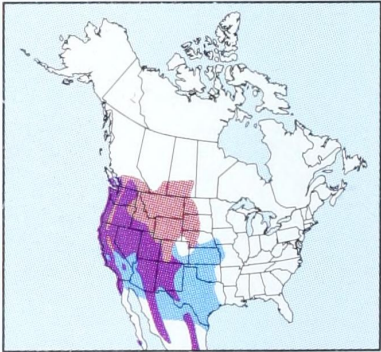
This bird is the western counterpart of the Eastern Towhee, and until recently they were considered one species, the Rufous-sided Towhee. The white spotting on the upperparts, wings, and tail shows geographical variation. The white on the undersides of the tail corners flash in flight. Juveniles are brown with two white wing bars and darker brown streaking on the upperparts and underparts.

- **SONG** Interior populations give 2 introductory *chip* notes, followed by a trill, similar to Bewick’s Wren. Pacific Coast birds deliver a fast or slow trilling. Call is slurred nasal mewing *guee*.
- **BEHAVIOR** Solitary or in pairs. Small family groups stay together after nesting season. Males sing from elevated perches. Forages by double-scratching in leaf litter on ground beneath dense thickets, pulling both legs sharply backward at the same time. Eats insects, caterpillars, spiders, seeds, and fruit; sometimes small lizards or snakes. If approached too closely, female scurries from nest in the manner of a small rodent to distract intruder.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 12–14 days by female. Young altricial; brooded by female; stay in nest 9–11 days, fed by both sexes, but mostly by male. 2 broods per year.
- **POPULATION** Common to fairly common in chaparral, brushy thickets, and forest edge.



Similar Birds

- ♂ EASTERN TOWHEE
 - Lacks white spotting on back and scapulars
 - male has blacker upperparts • female has paler brown head, breast, and upperparts.
- ♀



Flight Pattern

Short bounding flights with several rapid wing strokes followed by wings pulled to sides.

Nest Identification

Shape Location

- **FEEDERS** Mixture of oats, suet, and flax seeds.
- **CONSERVATION** Vulnerable to loss of habitat due to land clearing, grazing, and development. Fairly common host to cowbird parasitism.

Twigs, leaves, rootlets, grass, and bark • lined with grasses • on ground, sheltered by bush or grassy tussock, occasionally in low shrub or tree • built by female • 2–6 gray-brown or creamy white eggs, flecked and dotted with purple, red-brown, and gray; ovate, 0.95 x 0.7 inches.

Plumage Sexes differ	Habitat	Migration Some migrate	Weight Undetermined
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DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Pipilo erythrophthalmus</i>	Length 7–7.5 inches	Wingspan 10–11 inches
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EASTERN TOWHEE

Sometimes called a Ground Robin in the South, this is the eastern counterpart of the Spotted Towhee. Until recently these birds were classified as one species, the Rufous-sided Towhee. The two species hybridize where their ranges overlap along rivers in the Great Plains. The smaller Florida race has whitish eyes instead of red like most other races. In flight the white undertail corners flash conspicuously. Juveniles are brown overall with pale chins and dark streaking on underparts and upperparts.

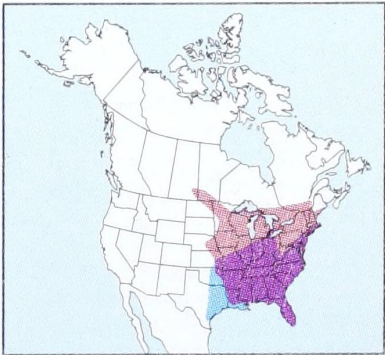
- **SONG** A clear whistled *drink-your-teeeaaa*, with the “tea” trilled. Much individual variation, with some birds leaving off the introductory note and some omitting the ending trill. Has calls of *toe-WHEEE* and *che-wink* or *wank*.
- **BEHAVIOR** Solitary or in pairs. Secretive; stays low in underbrush and on ground. Frequents brushy thickets, woodland edges, and riparian areas. Males are conspicuous when singing, often choosing an exposed perch. Usually detected by the rustle of dry leaves on ground; forages by double-scratching, pulling both legs sharply backward at once. Eats insects, caterpillars, small salamanders, fruits, and seeds.
- **BREEDING** Monogamous. Solitary. Courting male chases female and fans tail to show off white spots on outer feathers.
- **NESTING** Incubation 12–13 days by female. Young altricial; brooded by female; stay in nest 10–12 days, fed by both sexes, more by male. 2–3 broods per year.
- **POPULATION** Common to fairly common. Major decline in Northeast in last half of 20th century.



Similar Birds

 SPOTTED TOWHEE
Extensive white spotting on back and scapulars • female shows darker browns on head, breast, and upperparts.





Flight Pattern



Short bouncy flights with tail spread; series of rapid wing beats alternating with wings pulled to sides; repeated.

Nest Identification

Shape  Location 

- **FEEDERS** Mixture of oats, suet, and seeds.
- **CONSERVATION** Declines in Northeast poorly understood; vulnerable to loss of habitat, clearing of land, development, and pesticides in food chain. Frequent cowbird host.

Sticks, rootlets, grass, bark, and leaves, with lining of soft grasses • on ground, sheltered by grassy tussock or bush, occasionally in low bush or tree, 1–5 feet above ground (but up to 20 feet) • built by female • 2–6 creamy white or grayish eggs; oval, 0.9 x 0.66 inches.

Plumage Sexes differ	Habitat 	Migration Northern birds migrate	Weight 1.5 ounces
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DATE _____ TIME _____ LOCATION _____

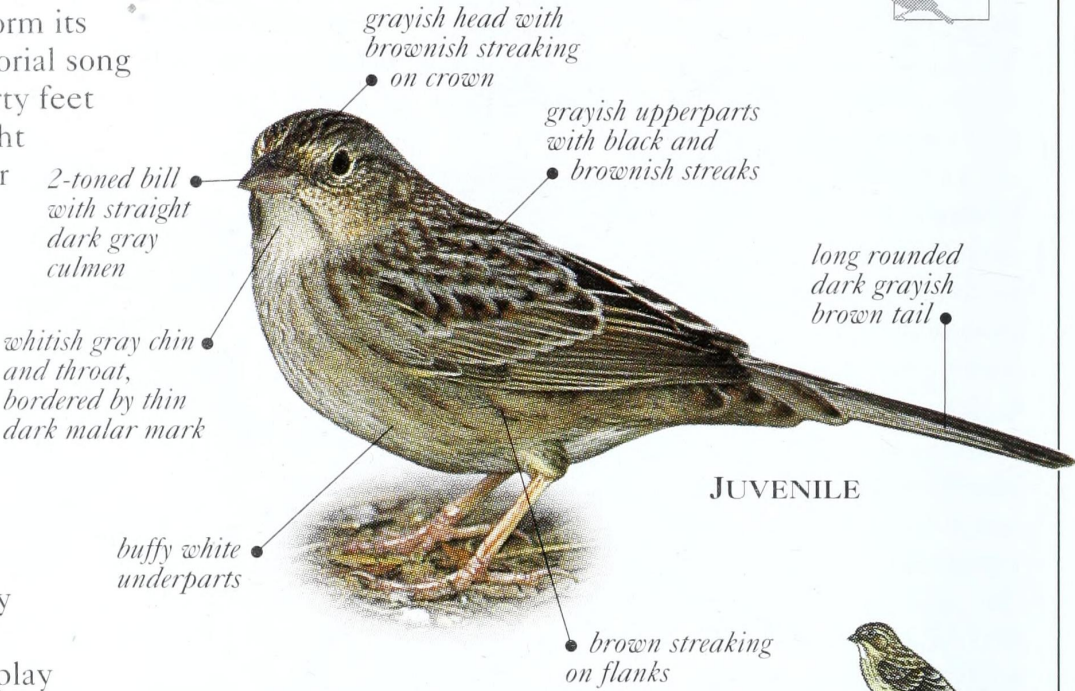
Family EMBERIZIDAE	Species <i>Aimophila cassinii</i>	Length 6 inches	Wingspan 9 inches
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CASSIN'S SPARROW

When another male invades its territory, this drab-looking sparrow will rise from its cactus perch and perform its exquisite fluttering territorial song flight some fifteen to thirty feet above the ground. In flight the white tips on its outer tail feathers are conspicuous. Adults are similar to juveniles but have whiter underparts with less streaking on the breast, sides, and flanks.

- **SONG** Slightly quivering sweet trill, preceded and followed by 2 notes. Call note is *pit*. Fluttering skylarking display flights. Sometimes sings at night.
- **BEHAVIOR** Solitary or in pairs. Small groups after nesting season. May join mixed foraging flocks in winter. Except when singing, skulks and forages under cover of tall grasses and bushes. Forages by scratching on ground, gleaning food from grassy vegetation and substrate. Eats seeds, insects, caterpillars, and flower buds. Like some other species living in arid regions, it apparently gains all the water it requires from its diet.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Breeding biology poorly known. Estimated incubation 12–14 days by female. Young altricial; brooded by female; remain in nest estimated 9–11 days, fed by both sexes. 1–2 broods per year.
- **POPULATION** Fairly common in arid grasslands with scattered thorn shrubs and cacti. Casual in the far West and the East in migration.
- **FEEDERS** Ground corn, sorghum, and other grains.

• **CONSERVATION** Neotropical migrant. Uncommon host to cowbird parasitism. Vulnerable to habitat loss due to overgrazing, land clearing for agricultural use, and for development.



JUVENILE



BREEDING ADULT

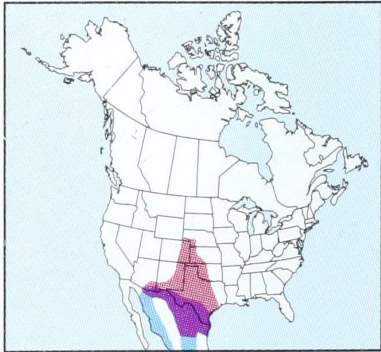
Similar Birds



BOTTERI'S SPARROW
Rusty brown-streaked gray upperparts; black streaking on uppertail coverts; buffy wash on breast, sides, and flanks, lacking streaks; lacks white tail tips.



BREWER'S SPARROW
Smaller; more slender body; cleft tail; smaller pinkish bill • western range.



Flight Pattern

Short flights on rapidly beating wings, alternating with brief periods of wings pulled to sides.

Nest Identification

Shape Location

Forbs, grass, and occasionally flowers, with lining of soft grass, rootlets, and hair • on grassy tussock sheltered by bush or low in cactus or bush • up to 1 foot above ground • built by female • 3–5 plain white eggs; oval, 0.8 x 0.6 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.7 ounce
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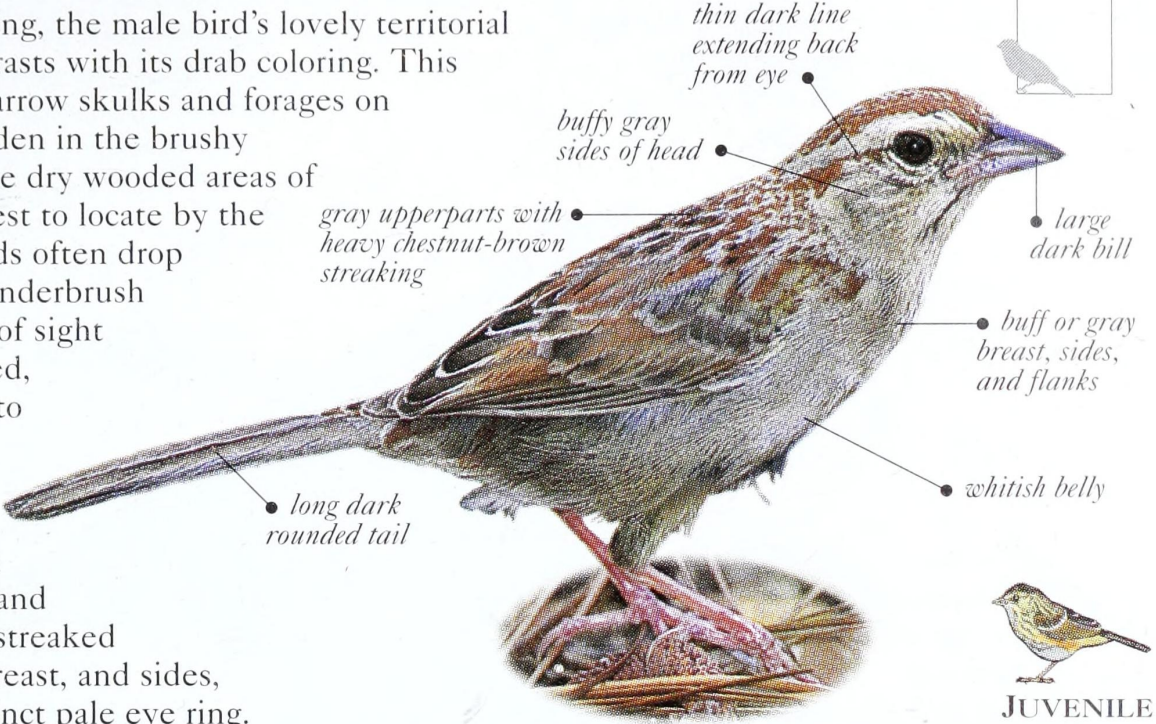
DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Aimophila aestivalis</i>	Length 6 inches	Wingspan 8 inches
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BACHMAN'S SPARROW

In the early spring, the male bird's lovely territorial flight song contrasts with its drab coloring. This large-bodied sparrow skulks and forages on the ground, hidden in the brushy understory of the dry wooded areas of the South. Easiest to locate by the male's song, birds often drop down into the underbrush and remain out of sight when approached, not responding to pishing sound by birders. Juveniles have buffy washes on the face, chest, and underparts, are streaked on the throat, breast, and sides, and show a distinct pale eye ring.

- **SONG** A pure fluted introductory note followed by a warbling or trilled melody, varied in pitch. Successive songs by the same male are pitched in different keys, and the song's musical quality has been favorably compared to that of the Hermit Thrush or the pattern of a Bewick's Wren. Call is a snakelike hiss.
- **BEHAVIOR** Solitary or in pairs. Secretive. Often difficult to see, because birds flushed from groundcover tend to fly only a very short distance before dropping back into cover. Male sings from a low exposed perch. Forages for food on ground. Eats mostly insects. Also eats seeds, snails, and spiders.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 12–14 days by female. Young altricial; brooded by female; stay in nest 10–11 days, fed by both sexes. 2–3 broods per year.
- **POPULATION** Uncommon. Declining in most of northern range due to loss of habitat. Frequents open dry woodlands, especially pines with grassy or scrub palmetto undergrowth.



Similar Birds

FIELD SPARROW
Smaller; smaller pinkish bill; gray head; brown crown; brownish ear patch; white eye ring; 2 white wing bars; gray underparts with buffy wash; notched tail.

GRASSHOPPER SPARROW
Chunkier; light buff crown stripe; much shorter, notched tail; buffy underparts; buffy lores; buffy streaking and feather edging on back; white eye ring
• different habitat, lives in meadows.

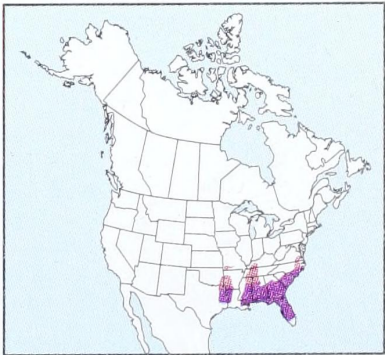
Flight Pattern

Short jerky flights of brief duration with rapidly beating wings briefly alternating with wings pulled to body.

Nest Identification

Shape Location

• **CONSERVATION**
Uncommon cowbird host. Vulnerable to habitat loss due to logging, development, land clearing, and ecological succession. National Audubon Society Blue List. Listed as threatened in many states.



Grass and forbs, with lining of plant down, grasses, and hair • on ground or grassy tussock, sheltered by tall grasses, vines, or shrub • built by female
• 3–5 plain white eggs; ovate, 0.8 x 0.6 inches.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 0.7 ounce
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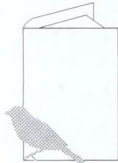
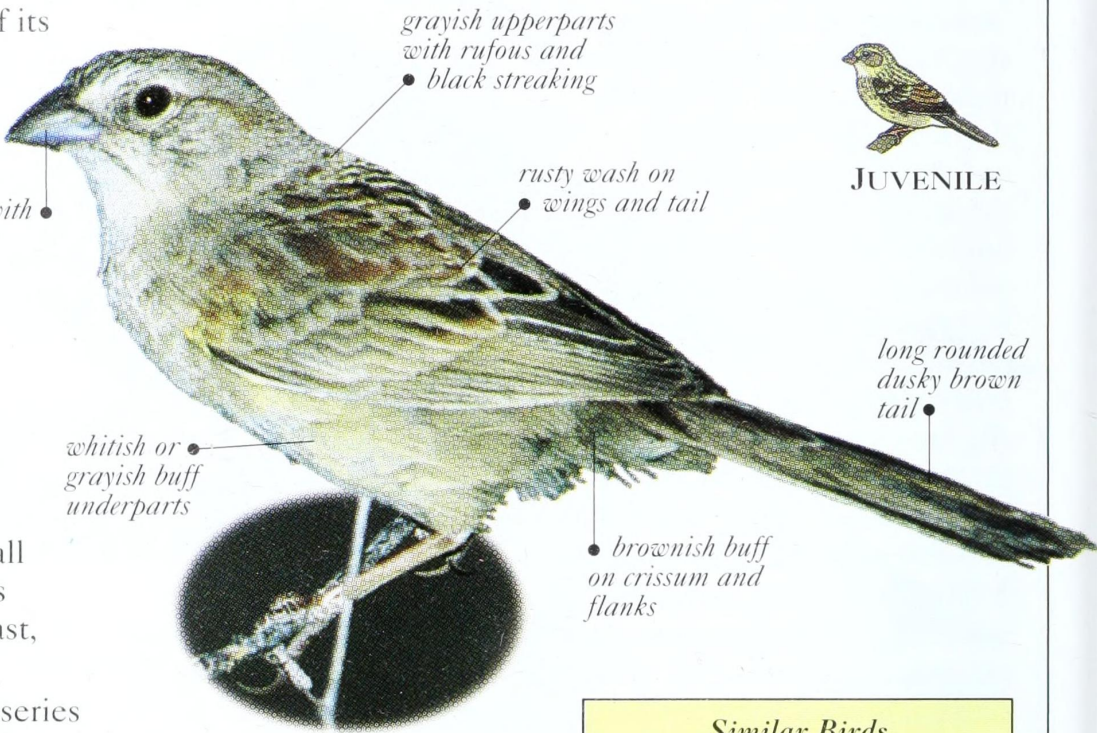
DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Aimophila botterii</i>	Length 6 inches	Wingspan 9 inches
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BOTTERI'S SPARROW

This large sparrow is a native of Mexico, its permanent range extending into southernmost Texas and its breeding range in summer into southeastern Arizona. Spending most of its time on the ground, it often will run rather than fly to escape danger. It can be distinguished from Cassin's Sparrow by its long brown tail and whitish breast, and when flushed, by the lack of white in the tips of its outer tail feathers. Juveniles are buffier overall and have buffy underparts with streaking on the breast, sides, and flanks.

- **SONG** A high abrasive series of hesitant chips, followed by a bouncing-ball trill. Call is a thin *chick*.
- **BEHAVIOR** Solitary or in pairs. Small groups after nesting season. Shy, elusive, and retiring. Hard to see. When flushed, flies short distance before dropping back into cover. Forages on ground for food. Eats insects and seeds. Males sing from low exposed perches and sometimes on the wing between perches.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Breeding biology poorly known. Estimated incubation 12–14 days by female. Young altricial; brooded by female; stay in nest estimated 9–11 days, fed by both sexes. 1–2 broods per year.
- **POPULATION** Uncommon in grasslands with scattered shrubs and bushes. Declining due to loss of habitat, especially in southern Texas.



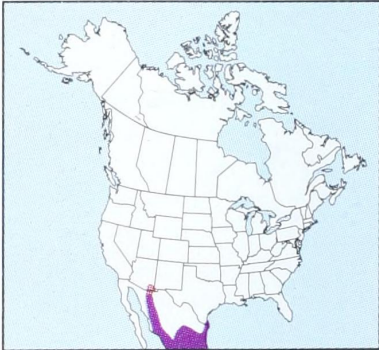
Similar Birds



CASSIN'S SPARROW
Dusky tail; white tips on outer tail feathers; dusky streaking on flanks; bill with straight culmen; dark spots and subterminal dark barring on upperparts; grayer underparts.



GRASSHOPPER SPARROW
Chunkier; buffy loreal region; short tail; buffier underparts; buffy streaking on upperparts.



Flight Pattern

Short flights on rapidly beating wings alternating with brief periods of wings pulled to sides.

Nest Identification

Shape Location

• **CONSERVATION**
Neotropical migrants in western population. Extent of cowbird parasitism unknown. Population declines due to overgrazing from as early as 1880s, land clearing, and development.

Grasses and rootlets, with lining of finer materials • on ground or grassy tussock, usually sheltered by tall grass or shrub • built by female • 2–5 plain bluish white eggs; oval to short oval, 0.8 x 0.57 inches.

Plumage Sexes similar	Habitat	Migration Texas birds do not migrate	Weight 0.7 ounce
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DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE

Species *Aimophila ruficeps*

Length 6 inches

Wingspan 9 inches

RUFOUS-CROWNED SPARROW

The black “whisker” lines on each side of its face, white eye ring, and lack of a white supercilium distinguish this bird from the similar Chipping Sparrow.

The wary Rufous-crowned Sparrow will run and hide from danger, rather than fly.

Despite this tendency, the sparrow is often conspicuous and easily observed when not approached too closely. It will, however, come out into the open in response to a squeaking noise. Juveniles have buffier upperparts and underparts, with streaking on the breast, and often show two narrow white wing bars.

• **SONG** A series of quick gurgling *chip-chip* notes, accelerating at the end. Call is an abrasive *deer*.

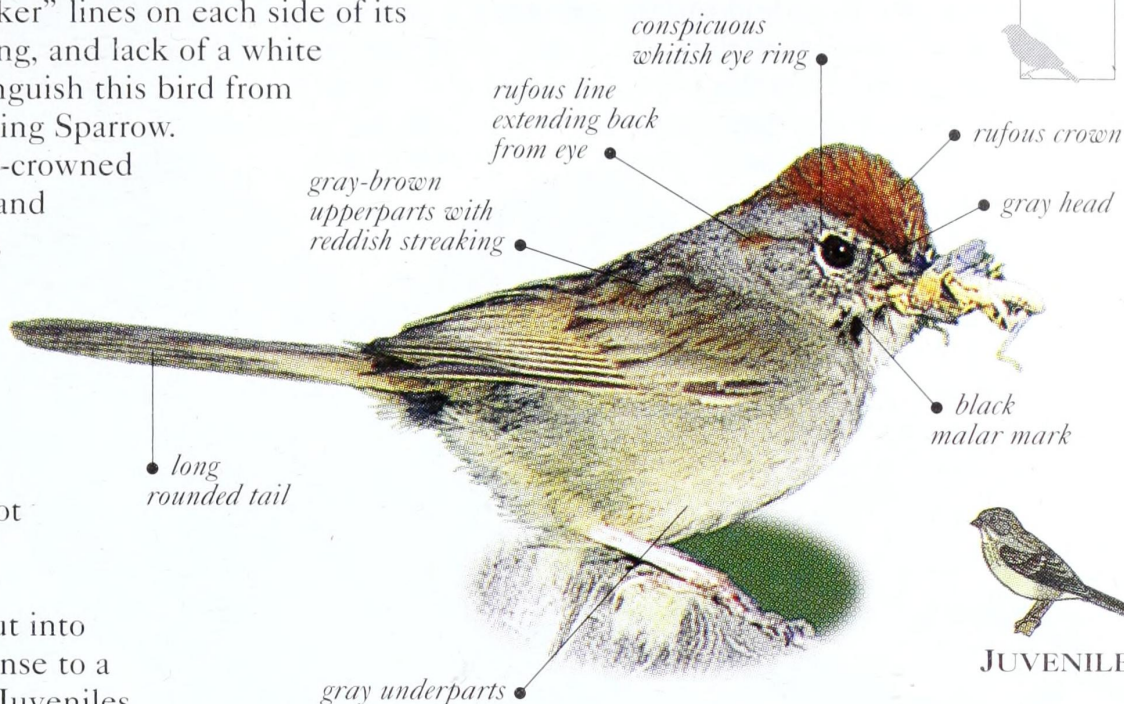
• **BEHAVIOR** Solitary or in pairs or small family groups.

Forages for food on ground or low in shrubs. Hops rather than walks. Eats insects, caterpillars, seeds, and grain. Male sings from exposed perch. Pair gives high-pitched squealing duet when reunited within breeding territory. Female gives feigned injury display when disturbed on nest by intruder.

• **BREEDING** Monogamous. Solitary.

• **NESTING** Breeding biology poorly known. Estimated incubation 11–13 days by female. Young altricial; brooded by female; stay in nest estimated 8–10 days, fed by both sexes. 1–2 broods per year.

• **POPULATION** Common locally on dry rocky hillsides with scattered grasses, shrubs, and brush.



JUVENILE

Similar Birds



CHIPPING SPARROW
Conspicuous black line through eyes; white line over eyes; two white wing bars; notched tail; upperparts heavily streaked with dark brown; lacks dark malar mark.



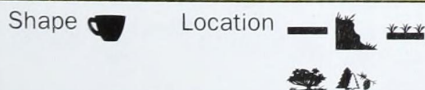
RUFOUS-WINGED SPARROW
Rufous shoulder patch; reddish postorbital line; dark mustache and malar mark; reddish forecrown; dark brown-streaked nape, back, and back of crown
• western range.

Flight Pattern



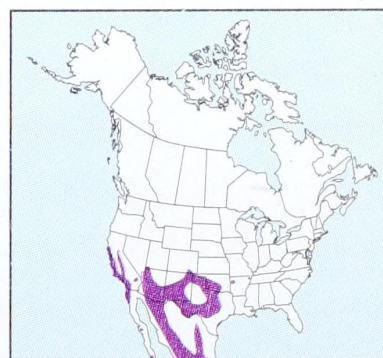
Short flights with rapidly beating wings alternating with brief periods of wings pulled to sides; repeated.

Nest Identification



• **FEEDERS** Baby chick scratch feed.

• **CONSERVATION** Extent of cowbird parasitism unknown. Vulnerable to habitat loss due to grazing and development.



Grass, sticks, and bark pieces, with lining of grasses and mammal hair • on ground, atop grassy tussock or sheltered by ridge of rock, bank, or tree roots
• sometimes low in tree or bush, 1–3 feet above ground (but up to 25 feet)
• built by female • 2–5 pale bluish white or white eggs, unmarked; oval, 0.8 inch long.

Plumage Sexes similar

Habitat

Migration Nonmigratory

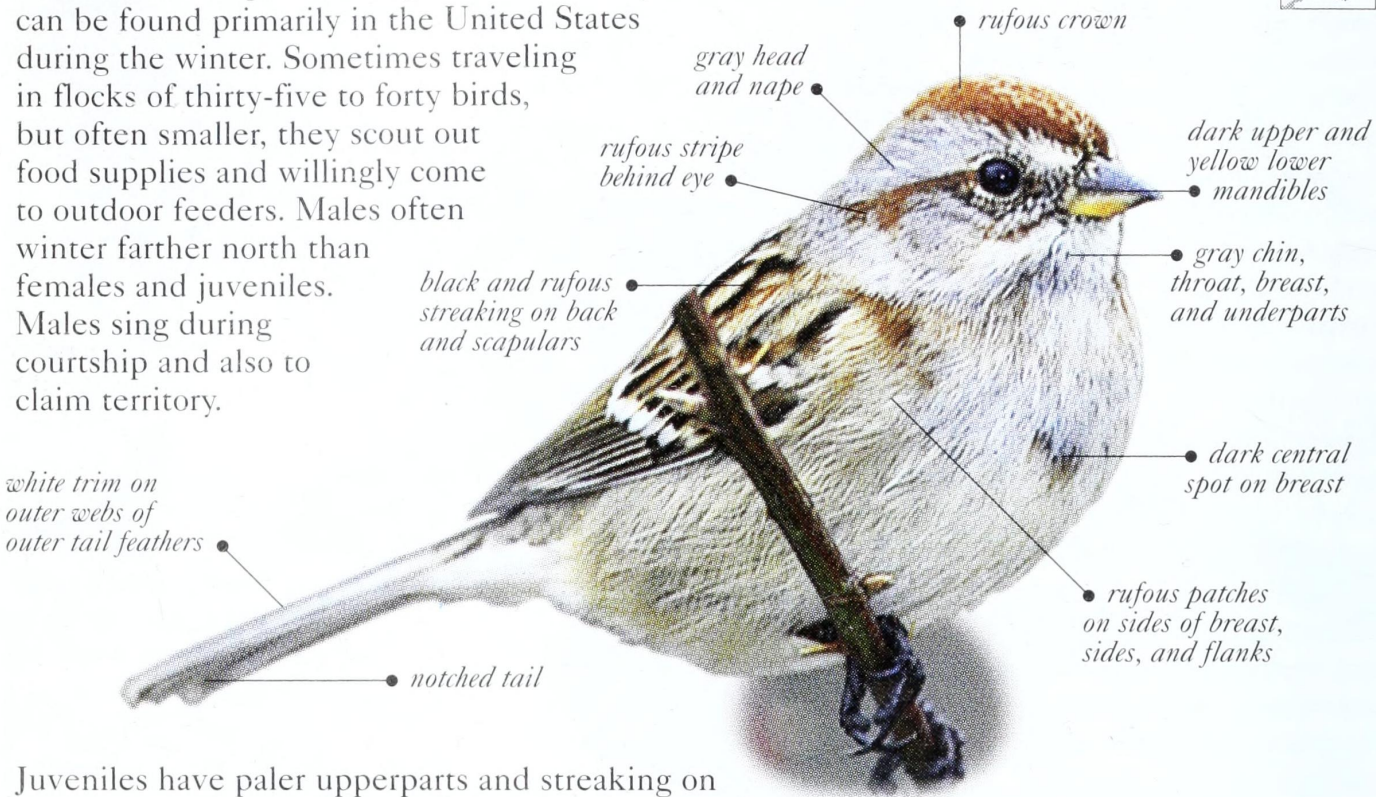
Weight 0.7 ounce

DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Spizella arborea</i>	Length 6.25 inches	Wingspan 9.75 inches
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AMERICAN TREE SPARROW

After nesting near the frigid tundra regions, flocks of these sparrows migrate south and can be found primarily in the United States during the winter. Sometimes traveling in flocks of thirty-five to forty birds, but often smaller, they scout out food supplies and willingly come to outdoor feeders. Males often winter farther north than females and juveniles. Males sing during courtship and also to claim territory.



Juveniles have paler upperparts and streaking on the head, breast, and sides. These birds spend their summers in open landscapes and their winters near the forest edge.

- **SONG** Several long clear introductory notes followed by a variable trilled melody. Has a call of *tweedle-eeet, tweedle-eeet*.
- **BEHAVIOR** In pairs on breeding grounds. In flocks in winter. Relatively tame and conspicuous. Forages for food by scratching on ground, foliage, or snow. Eats mostly seeds. Also eats insects and caterpillars in summer, as well as some berries and catkins of willow.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 12–13 days by female. Young altricial; brooded by female; stay in nest 8–10 days, fed by both sexes. 1 brood per year.



JUVENILE



WINTER PLUMAGE

Similar Birds



FIELD SPARROW
Smaller; pink upper and lower mandibles; clear buff breast lacks black central spot.

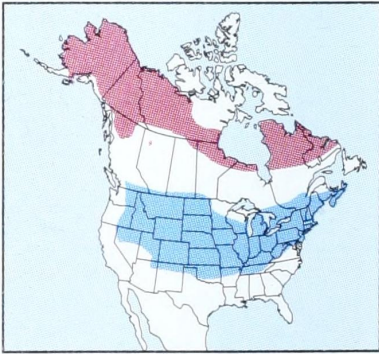
Flight Pattern

Short flight on rapidly beating wings alternating with brief periods of wings pulled to sides; repeated.

Nest Identification

Shape Location

- **POPULATION** Fairly common in weedy fields, open areas of brush and scattered trees, groves of small conifers, mixed conifer-deciduous groves, and marshes.
- **FEEDERS** Feeds on wild birdseed mixture.



Stems, bark pieces, moss, and grass, with lining of feathers, fur, and hair • atop clump of grass or moss, rarely low in shrub or tree • 1–5 feet above ground • built by female • 3–7 light blue or greenish white eggs, with brown spots and flecks; oval, 0.75 x 0.56 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.7 ounce
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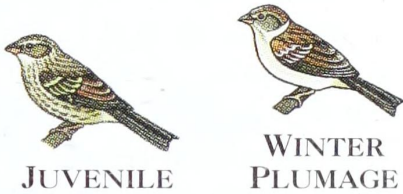
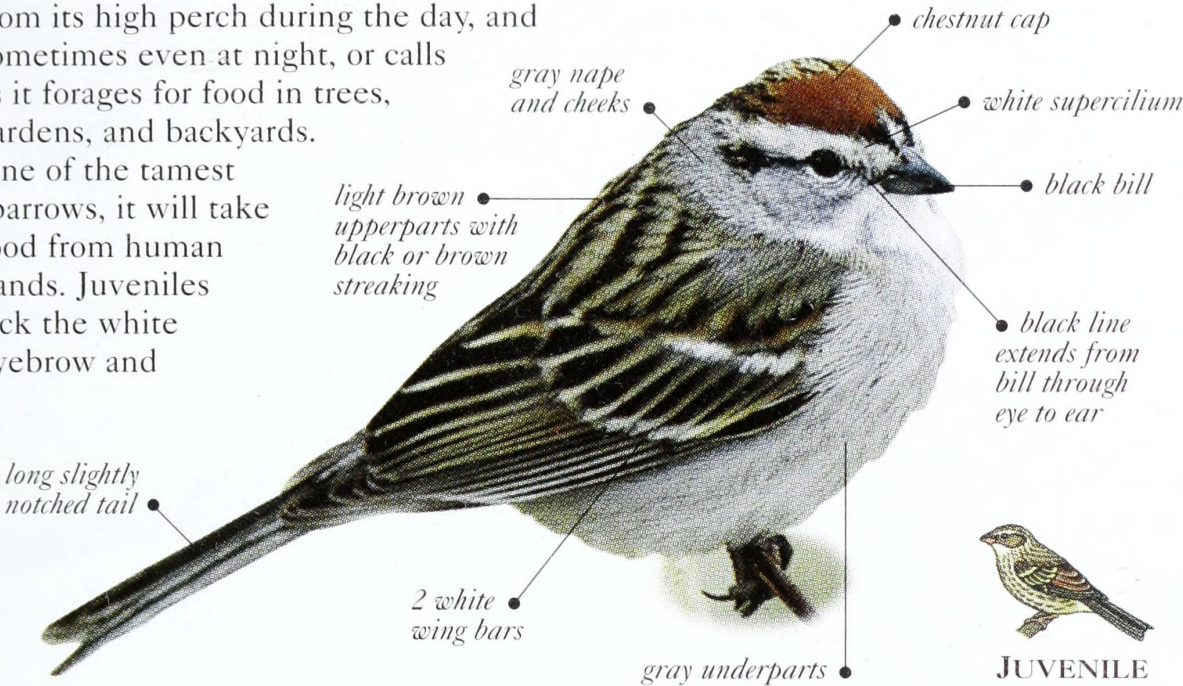
DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Spizella passerina</i>	Length 5.5 inches	Wingspan 8–9 inches
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CHIPPING SPARROW

Its bold chestnut cap, bordered by a long white superciliary stripe during breeding season, helps identify this tiny sparrow. Named for its song and call, it sings from its high perch during the day, and sometimes even at night, or calls as it forages for food in trees, gardens, and backyards.

One of the tamest sparrows, it will take food from human hands. Juveniles lack the white eyebrow and



- chestnut cap but have a streaked crown and nape, streaked underparts, and buffy wing bars. Winter birds have brown-streaked crowns, brown faces, and dark lores.
- **SONG** A repetitive series of trilled chip notes, *chip-chip-chip-chip-chip-chip-chip*, all the same pitch. Has a call of *seek*.
 - **BEHAVIOR** Solitary or in pairs. In small family groups after breeding season. May join mixed-species foraging flocks in winter. Forages on ground and picks off foliage. Eats seeds, insects, their caterpillars, and spiders.
 - **BREEDING** Monogamous. Solitary. A few males polygynous.
 - **NESTING** Incubation 11–14 days by female. Young altricial; brooded by female; stay in nest 8–12 days, fed by both sexes. 2 broods per year.
 - **POPULATION** Common and widespread in open mixed

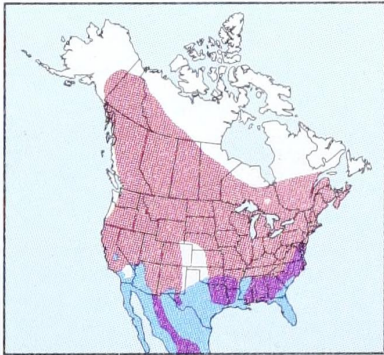
coniferous-deciduous forests, forest edges, gardens, lawns, and short-grass fields.

- **FEEDERS** Comes to feeders for breadcrumbs and seeds.
- **CONSERVATION** Neotropical migrant. Common host to cowbird parasitism.

Similar Birds



CLAY-COLORED SPARROW
Black-streaked brown crown with gray center stripe; buffy brown cheek patch bordered by dark postocular stripe and dark mustache mark; pale grayish eyebrow; whitish chin and submustachial stripe separated by buffy malar mark; whitish underparts with buffy wash on breast.



Flight Pattern	
Typically, short flights with rapidly beating wings alternating with brief periods of wings pulled to sides; repeated.	
Nest Identification	
Shape	Location

Grass, forbs, weed stalks, and rootlets, with lining of mammal hair and grass • on branch or vine tangle, rarely on ground • most often 3–11 feet above ground (but up to 60 feet) • built by female • 2–5 bluish green eggs, marked with dark browns, blues, and blacks, often wreathed; subelliptical to short subelliptical, 0.7 x 0.5 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.4 ounce
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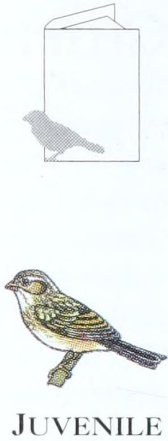
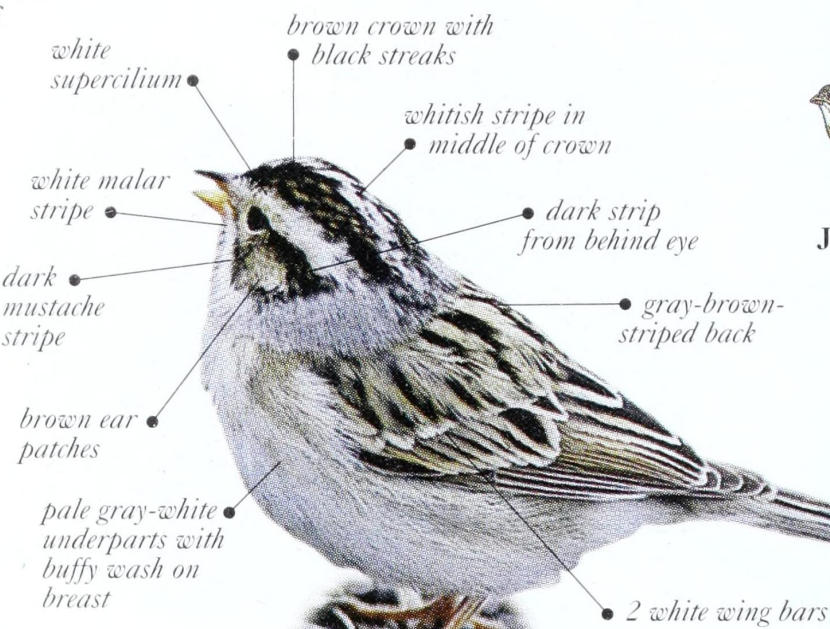
DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Spizella pallida</i>	Length 5.5 inches	Wingspan 8 inches
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CLAY-COLORED SPARROW

The male bird perches to claim its territory while singing its buzzy insectlike song across the grasslands. Wintering primarily in the highlands of central Mexico, this tiny bird flies north to summer in the prairies of Canada and the northern United States. In flight this frequent visitor to backyard feeders shows a dark buff rump. Juveniles have a gray nape, buffy brown cheek patch, and streaked underparts.

- **SONG** Insectlike repetitive *bzzz-bzzzz-zeee-zeee*. Has a call of *chip* or *sip*.
- **BEHAVIOR** In pairs during breeding season. Small family groups prior to fall migration. Males vigorously defend small territory. Sings often and well into the heat of July. Forages on ground or low in trees. Eats seeds and insects. May join mixed-species feeding flocks with other sparrows in winter.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 10–12 days by both sexes, but female does more. Young altricial; brooded by female; stay in nest 8–9 days, fed by both sexes. 1–2 broods per year.
- **POPULATION** Fairly common in brushy weedy fields, riparian thickets, and forest edges. Slight decline over recent decades due to loss of habitat after human populations increased in the North and East. Rare to casual visitor in migration and winter on both coasts, the Southwest, and southern Florida.
- **FEEDERS** Will come to feeding stations for breadcrumbs, cracked corn, sunflower seeds, and millet.



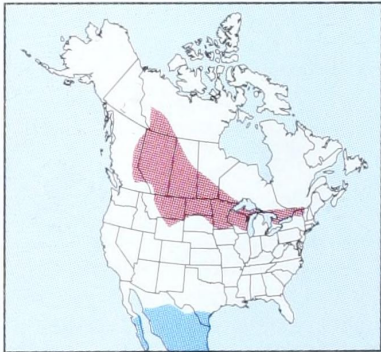
Similar Birds



CHIPPING SPARROW
Winter adults have gray rump; brown crown with black streaking and whitish central crown stripe; gray underparts • first winter birds have buffy underparts.



BREWER'S SPARROW
Lacks whitish crown stripe; blacker streaking on upperparts; paler brown ear patch lacks black outline; whitish eye ring.



Flight Pattern



Typically, short flight on rapidly beating wings alternating with brief periods of wings pulled to sides.

Nest Identification

Shape Location

- **CONSERVATION** Neotropical migrant. Common host to cowbird parasitism. Vulnerable to habitat loss due to development and land clearing for agriculture.

Sticks, grass, forbs, and rootlets, with lining of mammal hair and rootlets • atop grassy tussock, on ground sheltered by bush, or low in branch of shrub or tree • less than 5 feet above ground • built by female • 3–5 bluish green eggs, marked with dark browns and blacks, often wreathed; ovate, 0.67 x 0.5 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.4 ounce
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DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE

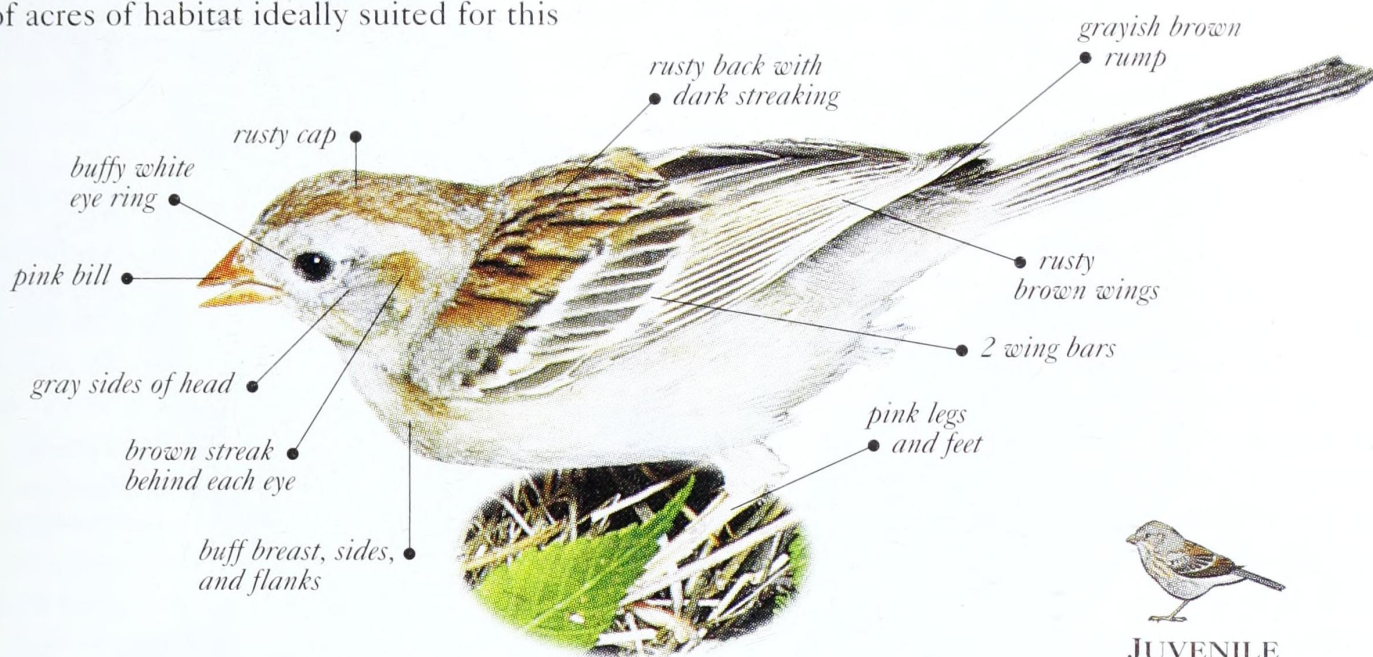
Species *Spizella pusilla*

Length 5.75 inches

Wingspan 8.5 inches

FIELD SPARROW

This sparrow stays near the ground in fields and open woodlands. When defending its nest, the male flies from tree to tree singing a melody that accelerates like the bouncing of a dropped rubber ball. The clearing of the primeval eastern forest provided thousands of acres of habitat ideally suited for this



small sparrow. Now, as the old farms become suburbs or succumb to the woodlots brought on by ecological succession, this bird is declining in this range.

• **SONG** A pleasant *seee-seee-seee-wee-wee-wee*, which begins with separate clear whistled notes and accelerates, either ascending, descending, or staying on the same pitch. Call is abrasive *chip*.

• **BEHAVIOR** Solitary or in pairs in breeding season. In small family flocks after nesting. In winter, forms flocks that may join mixed-species foraging flocks. Forages on ground or low in shrubbery for insects, caterpillars, seeds, and spiders. Tame and curious; responds to squeaking and pishing by birders.

• **BREEDING** Monogamous. Solitary.

• **NESTING** Incubation 10–17 days by female. Young altricial; brooded by female; stay in nest 7–8 days, fed by both sexes. Male tends and feeds fledglings while female incubates second clutch. 2–3 broods per year.

Similar Birds

CLAY-COLORED SPARROW
Brown crown with central stripe; buffy cheek patch; buffy brown malar mark; gray nape; buffy edges and streaks on upperparts; whitish underparts with buffy wash on chest and flanks; 2 buffy wing bars.



Flight Pattern



Short flights with rapid wing beats alternating with brief periods of wings pulled to sides; repeated.

Nest Identification

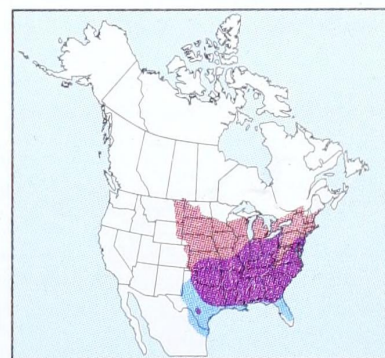
Shape Location

• **POPULATION** Fairly common in old fields, open brushy woodlands, thorn scrub, and forest edge. Casual in West. Uncommon in the Maritimes.

• **FEEDERS** Small grain.

• **CONSERVATION** Common host to cowbird parasitism.

Fine grasses, leaves, and dried grass, with lining of mammal hair and rootlets • atop grassy tussock or clump of vegetation, sometimes in vine or bush • less than 3 feet above ground • built by female • 2–6 creamy pale greenish bluish white eggs, marked with browns, occasionally wreathed; short subelliptical, 0.7 x 0.53 inches.



Plumage Sexes similar

Habitat

Migration Northern birds migrate

Weight 0.4 ounce

DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Pooecetes gramineus</i>	Length 5.5–6.75 inches	Wingspan 10–11.25 inches
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VESPER SPARROW

This bird is named for the time of day it usually sings its best and most continuous choruses, which is at twilight when many other songbirds have become silent. Its song is not limited to the vespers hour, however, for during nesting season, it sings throughout the day from the highest perch available in its territory. This sparrow, with chestnut lesser coverts on its shoulder and white outer tail feathers, has a vast geographical distribution, its home habitats ranging from dry grasslands and farmlands to sagebrush flats. Juveniles resemble adults but have more extensive streaking on the underparts.

- **SONG** Two drawled clear notes followed by two higher notes, then a short descending trill. Call is a high thin *tssit*.
- **BEHAVIOR** Solitary or in pairs. May form small family groups after breeding season. May join loose flocks in winter. Walks on ground. Runs from danger instead of flying. Forages on ground, in grasses, and in low shrubbery for insects and seeds. Very fond of dust baths. Neither bathes in nor drinks water, meeting all internal water needs through diet.
- **BREEDING** Monogamous. Solitary or loose colonies.
- **NESTING** Incubation 11–13 days by both sexes, but female does more. Young altricial; brooded by female; stay in nest 7–14 days, fed by both sexes. Fledglings tended and fed by male while female starts another nest. 1–3 broods per year.
- **POPULATION** Uncommon to fairly common. Numbers declining in the East as habitat is lost to development and because logged areas become older and less suitable for nesting.



Flight Pattern

Short flights on rapidly beating wings alternating with brief periods of wings pulled to sides; repeated.

Nest Identification

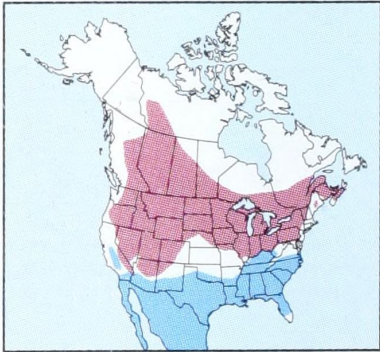
Shape	Location
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Dry grasses, weed stalks, and rootlets, lined with finer grasses and animal hair • in scraped-out depression on ground • hidden under vegetation, in field, near tall grass clump, on sand or dirt • built by female • 2–6 creamy white or pale greenish white eggs with brown markings; oval, 0.8 x 0.6 inches.

Similar Birds



SAVANNAH SPARROW
Shorter tail; yellow supercilium; pale central crown stripe; central “stickpin” spot on chest; lacks chestnut lesser coverts; lacks white eye ring and outer tail feathers.



Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.0 ounce
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DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Chondestes grammacus</i>	Length 5.75–6.75 inches	Wingspan 10.5–11 inches
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LARK SPARROW

This sparrow, with its harlequin head pattern, has a lovely voice and sings from the ground, a perch, or while flying, sometimes even at night. Frequenting the open prairies and other open habitats, mostly west of the Mississippi River, it can be identified by the dark spot in the center of its breast and the long rounded tail with extensive white edging. Juveniles are similar to adults but more washed-out with an ill-defined head pattern, buffier coloration, dark brown streaking on the white throat, and white underparts with a buffy wash on the sides of the breast.

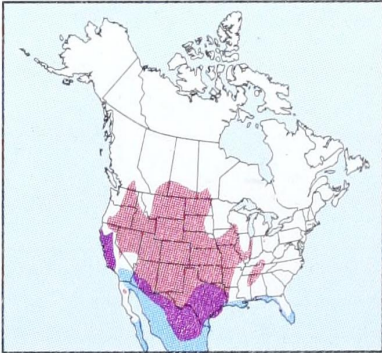
- **SONG** Long, pleasant bubbling melody, beginning with 2 loud clear notes followed by series of chips, buzzes, and trills. Call is repetitive sharp metallic *tik*, often given in flight.
- **BEHAVIOR** Solitary or in pairs. Gregarious. Feeds in flocks, even during breeding season. Forages for food on ground and low in trees and shrubs. Eats seeds, insects, and caterpillars. Females on nest perform distraction display when disturbed, scurrying away with wings fluttering and tail spread. Prior to copulating, male often passes to female a twig or grass stem, which she holds.
- **BREEDING** Monogamous. Occasionally polygamous. Often in loose colonies. Male displays while swaggering on the ground in front of female, his tail spread, showing off its white feathers.
- **NESTING** Incubation 11–12 days by female. Young altricial; brooded by female; remain in nest 9–10 days, fed by both sexes. 1 brood per year.
- **POPULATION** Common in cultivated areas, fields, pastures, grassland, prairie, and savanna. Range has declined east of the Mississippi River due to loss of habitat. Casual to East coast.



JUVENILE

Similar Birds

Head pattern is distinctive; not likely to be confused with other sparrows.



Flight Pattern

Short fluttering flight on rapidly beating wings alternating with brief periods of wings pulled to sides.

Nest Identification

Shape Location

- **FEEDERS** Small grains.
- **CONSERVATION** Neotropical migrant. Uncommon cowbird host. Vulnerable to habitat loss due to land clearing, development, overgrazing, and nest losses to agricultural operations.

Sticks, grass, and forbs • lined with rootlets and grasses • atop grassy tussock shaded by bush, or low in tree, sometimes in shrub or bush or in abandoned nest • 3–30 feet above ground • built by female • 3–6 creamy to grayish white eggs, marked with dark browns and blacks, often wreathed; oval, 0.8 x 0.62 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.0 ounce
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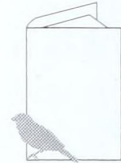
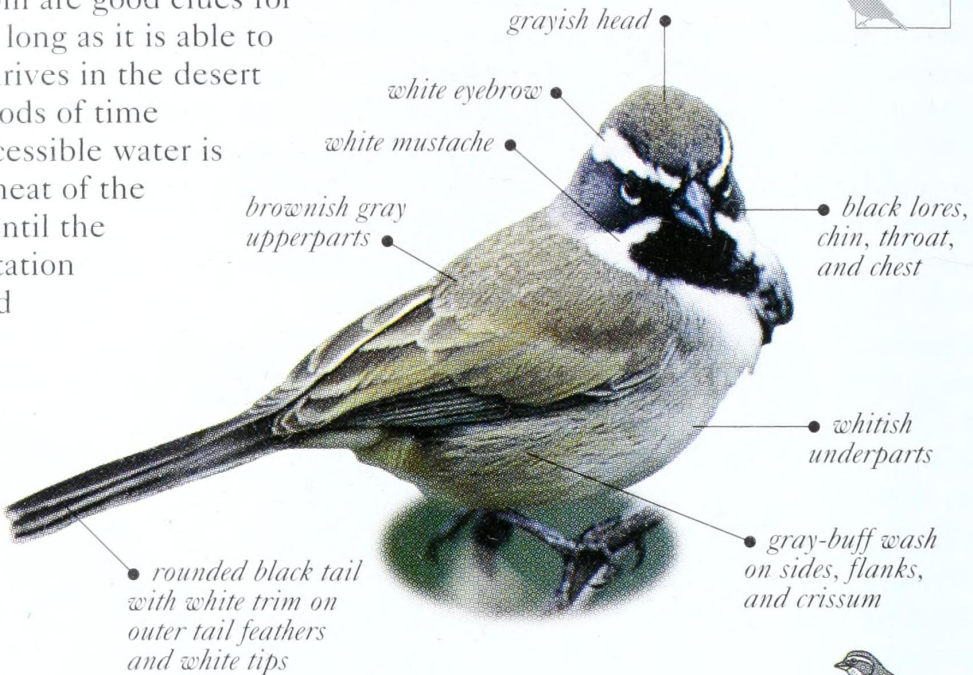
DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Amphispiza bilineata</i>	Length 5.5 inches	Wingspan 8.5 inches
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BLACK-THROATED SPARROW

Its bold black throat and the white stripes above its eye extending from its bill are good clues for identifying this sparrow. As long as it is able to get water from its diet, it thrives in the desert country, surviving long periods of time without drinking water. Accessible water is necessary, however, in the heat of the summer through autumn, until the rains begin and green vegetation develops. It has not adapted well to the transition of habitats as some of its range has been developed into suburbs. Juveniles lack the black chin, throat, and breast of adults and are streaked with brown on the breast and sides.

- **SONG** A high bell-like song with 2 introductory notes followed by a trill *queat-queat, toodle-oodle-oodle*; variable. Call is an abrasive *chip* or high sweet tinkling twitters.
- **BEHAVIOR** Solitary or in pairs. Sometimes forms small family groups after nesting season. Joins mixed-species foraging flocks in winter. Fairly tame and curious. Responds to pishing by birders. Forages for food on ground and in low vegetation. Eats seeds, spiders, and insects. Walks or runs, often with tail cocked upward. Timing of breeding varies annually, apparently based on seasonal rainfall amounts and food availability.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Breeding biology poorly known. Estimated incubation 12–15 days by female. Young altricial; brooded by female; stay in nest estimated 10–11 days, fed by both sexes. 2 broods per year.
- **POPULATION** Fairly common in desert and semidesert scrub, especially on rocky uplands. Declining in some areas due to development of habitat.



JUVENILE

Similar Birds



SAGE SPARROW
Juvenile similar to juvenile Black-throated Sparrow • white eyebrow stripe and white eye ring; sandy gray-brown crown, nape, and back; fine dusky streaks on chest; traces of central dark spot on chest; tail lacks white edging and tips; brown streaking on sides and flanks.

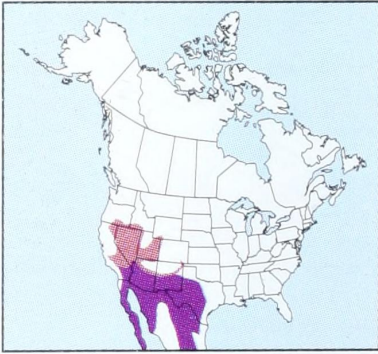
Flight Pattern

Typically, short-duration flights on rapidly beating wings alternating with brief periods of wings pulled to sides; repeated.

Nest Identification

Shape Location

Forbs and grass, with lining of mammal hair and plant fibers • in middle of bush or cactus, less than 10 feet above ground • built by female • 2–4 plain white or pale blue eggs; oval, 0.7 x 0.52 inches.



Plumage Sexes similar	Habitat	Migration Northern birds migrate	Weight 0.5 ounce
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DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE

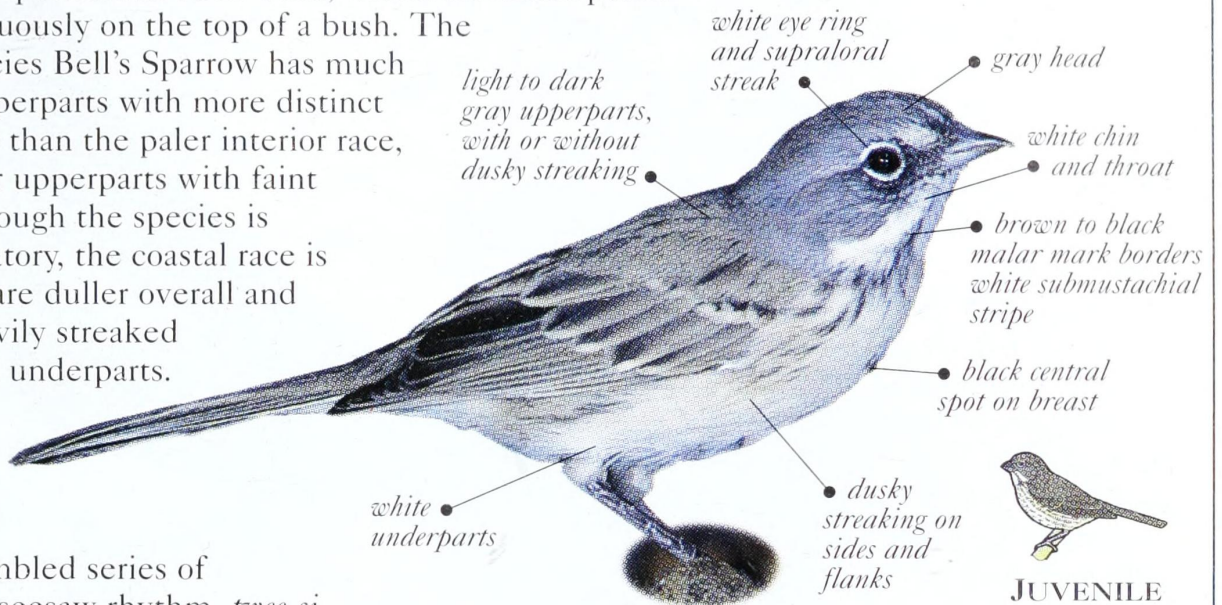
Species *Amphispiza belli*

Length 6.25 inches

Wingspan 8.25 inches

SAGE SPARROW

This shy sparrow of coastal California and the Great Basin area west of the Rocky Mountains most often skulks and hides under dense scrub. It often flicks its tail as it walks on the ground; when it runs, it usually holds its tail perpendicular to its back, wrenlike. Males perch to sing conspicuously on the top of a bush. The coastal subspecies Bell's Sparrow has much darker gray upperparts with more distinct facial markings than the paler interior race, with its sandier upperparts with faint streaking. Although the species is primarily migratory, the coastal race is not. Juveniles are duller overall and have more heavily streaked upperparts and underparts.



- **SONG** A jumbled series of phrases with a seesaw rhythm, *twee-si-tity-slip*, *twee-si-tity-slip*, high, thin, and tinkling. Has a high faint call note of *tik* or *tik-tik*.
- **BEHAVIOR** Solitary or in pairs. Small flocks after breeding season. Inconspicuous and wary. Difficult to observe. Often found near water. Stays low in shrubbery or on ground, except to sing. Forages mainly on ground. Eats insects, caterpillars, and seeds. Male twitches tail while singing and when scolding intruders. Runs or flies away low over or within vegetation.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 12–16 days by female. Young altricial; brooded by female; stay in nest 9–11 days, fed by both sexes. 2 broods per year.
- **POPULATION** Common and widespread in the Great Basin in sagebrush and alkaline flats. Coastal subspecies fairly common to common in montane chaparral. Accidental in East.
- **FEEDERS** Will come to feeders for baby chick scratch feed.

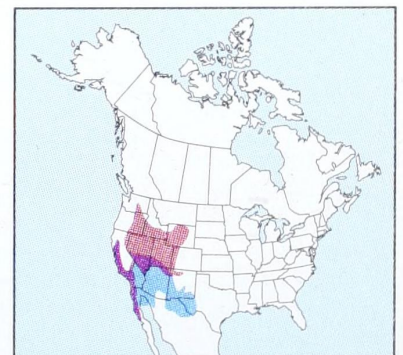
Similar Birds



LARK SPARROW
Brown ear patches; harlequin head pattern; white tail corners; black spot in center of white chest; does not bob tail.



BLACK-THROATED SPARROW
Juvenile similar to juvenile Sage Sparrow
• gray head, nape, and ear patch; white supercilium; white throat and broad mustache; brown-streaked breast and sides; white edges and outer tips to tail.



Flight Pattern



Short flights close to ground, with rapid wing beats alternating with brief periods of wings pulled to sides; repeated.

Nest Identification

Shape Location

CONSERVATION

Uncommon host to cowbird parasitism. Vulnerable to habitat loss due to land clearing and development, overgrazing by cattle. The endemic San Clemente Island (California) subspecies is endangered.

Twigs, grass, and bark chips, with lining of grasses, forbs, feathers, fur, and seeds
• set deep in shrub, less than 4 feet above ground • sometimes in scrape on ground, sheltered by bush • built by female • 2–5 bluish white eggs, marked with dark browns and black, occasionally wreathed; ovate, 0.8 x 0.65 inches.

Plumage Sexes similar

Habitat

Migration Most migrate

Weight 0.7 ounce

DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Calamospiza melanocorys</i>	Length 7 inches	Wingspan 11 inches
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LARK BUNTING

In the spring hundreds of these birds fly in choreographed circles and shapes like a rolling wheel of birds. As they move across the prairie, birds from the rear fly to the front over birds settling into vegetation. They remain in flocks as they return to their nesting grounds on the sagebrush plains. Males and females have similar winter plumage, but males show black primaries. Juveniles are similar to winter adults. This is the state bird of Colorado.

• **SONG** Flutelike warbling melody of full whistles and trills. Often sings in groups. Call is *hoo-ee*.

• **BEHAVIOR** In pairs or flocks. Gregarious; in flocks most of year. Forages on ground and in low vegetation. Eats insects, caterpillars, and seeds. Territorial males ascend 20–30 feet with white wing patches flashing, pour out song, and descend with jerky butterfly movements to ground. Neighboring males often join in display flights.

• **BREEDING** Monogamous. Some are polygynous. Loose colonies. Displaying male fluffs out feathers and crest and sings.

• **NESTING** Incubation 11–12 days by female; some males help. Altricial young brooded by female; stay in nest 8–9 days, fed by both sexes. 2 broods per year.

• **POPULATION** Common in grasslands, dry plains, prairies, sagebrush flats, and meadows. Rare to casual on Pacific Coast in fall and winter. Casual in the East in fall and winter.

• **FEEDERS** Occasionally attends feeders that supply small grains and seeds.

• **CONSERVATION** Neotropical migrant. Uncommon host to cowbird parasitism. Historical population declines in northern and eastern parts of breeding range caused by loss of prairie habitat.

Flight Pattern

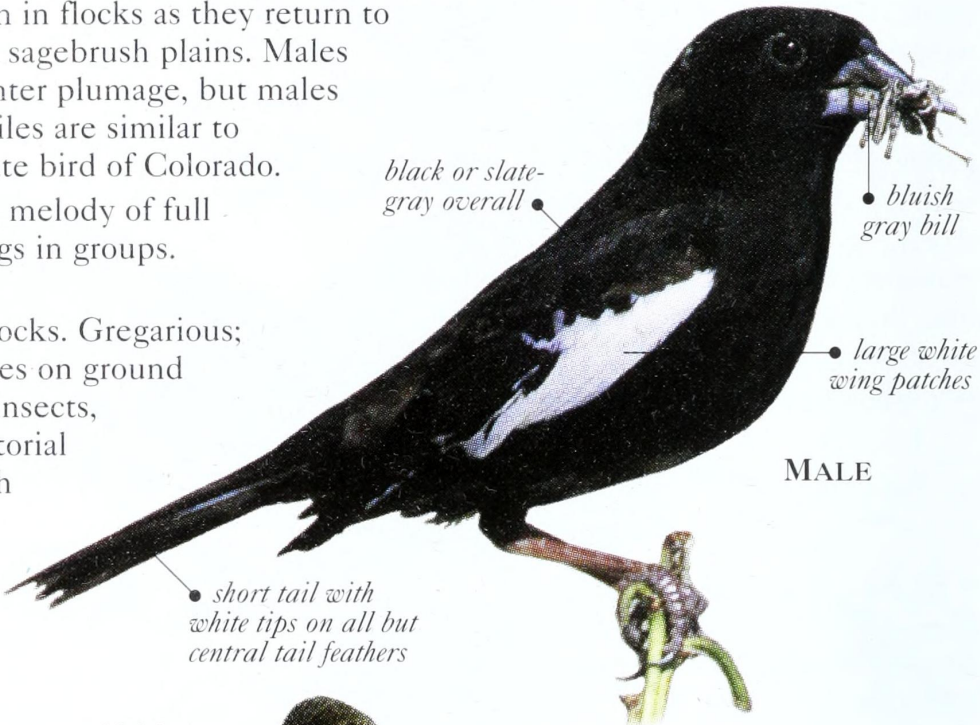


Strong flight with shallow wing beats alternating with brief periods of wings pulled to sides.

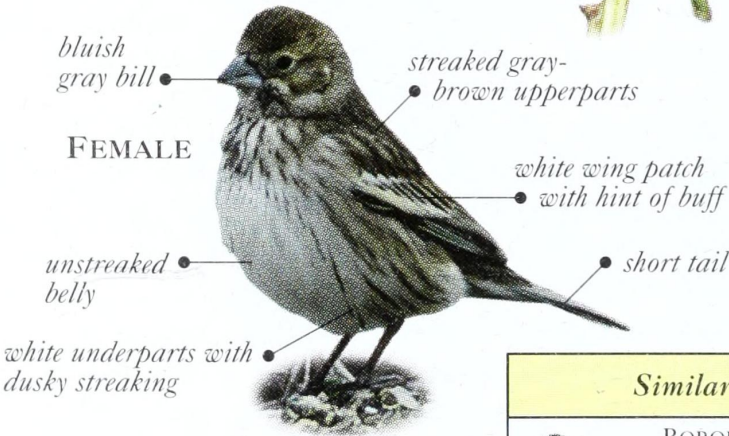
Nest Identification

Shape  Location 

Grass, forbs, and fine roots • lined with hair and plant down • in grassy depression • built by female • 3–7 pale blue or greenish blue eggs, occasionally spotted with reddish browns; oval, 0.9 inches long.



MALE



FEMALE

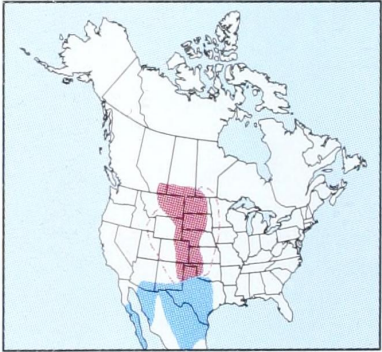


WINTER PLUMAGE

Similar Birds



BOBOLINK ♂
White on back, rump, uppertail coverts, and wings; buffy ocher hindneck.



Plumage Sexes differ	Habitat   	Migration Migratory	Weight 1.1 ounces
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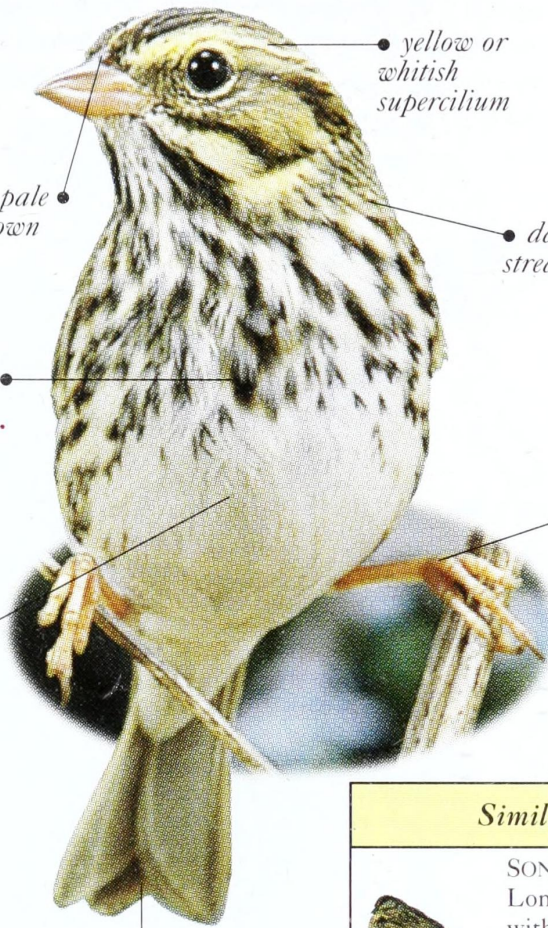
DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Passerculus sandwichensis</i>	Length 5.25–6.25 inches	Wingspan 8–9.5 inches
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SAVANNAH SPARROW

Named for the city in Georgia where it was first spotted, this bird has a wide range, living in grassy marshes and wet meadows to grasslands and cultivated grass to tundra. It also has considerable variation between the many races that make up the species. Like many sparrows, it spends most of its time on the ground; when disturbed, it scurries through the grasses, running mouselike rather than flying away. But if hard-pressed it flies up a short distance then drops back into the grasses.

- **SONG** Begins with 2–3 *chip* notes followed by 2 buzzy insectlike trills, *tip-tip-seeeee-saaaay*. Call note is *seep*.
- **BEHAVIOR** Solitary or in pairs. May form small family groups after breeding season. Gregarious; forms flocks in migration and winter. Forages for food on ground, sometimes scratching in dirt and foliage. Eats seeds, insects, spiders, and sometimes snails. Roosts in small tight groups on the ground.
- **BREEDING** Monogamous. Solitary. Some marsh-dwelling populations tend to be polygynous. Sometimes loose colonies.
- **NESTING** Incubation 10–13 days by both sexes, but female does most. Young altricial; brooded by female; stay in nest 7–14 days; fed by both sexes. 1–2 broods per year.



IPSWICH FORM

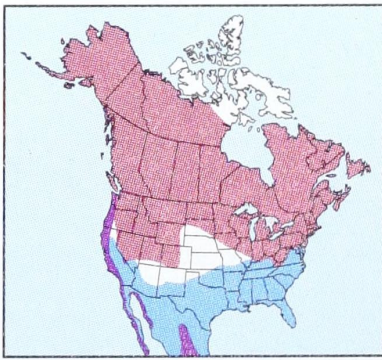
Similar Birds



SONG SPARROW
Longer rounded tail without notch; heavier streaking on the underparts; large central “stickpin” on chest in most races; lacks yellow in lores and supercilium.



VESPER SPARROW
Gray-brown streaking on upperparts, throat, breast, and sides; wing has chestnut patch at bend; white outer tail feathers; white eye ring; brown ear patch.



Flight Pattern



Short flights with rapidly beating wings alternating with brief periods of wings pulled to sides.

Nest Identification

Shape Location

- **POPULATION** Abundant and widespread in open grassy landscapes and tundra. May be extending range farther south in the southern Appalachians.
- **CONSERVATION** Neotropical migrant. Uncommon cowbird host.

Moss and dried grasses • lined with fine hair, fine grasses, and roots • in depression or scrape, sheltered by vines, grasses, or dune • built by female • 2–6 pale greenish blue or whitish eggs, marked with brown, sometimes wreathed; ovate to short ovate, 0.8 x 0.57 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.8 ounce
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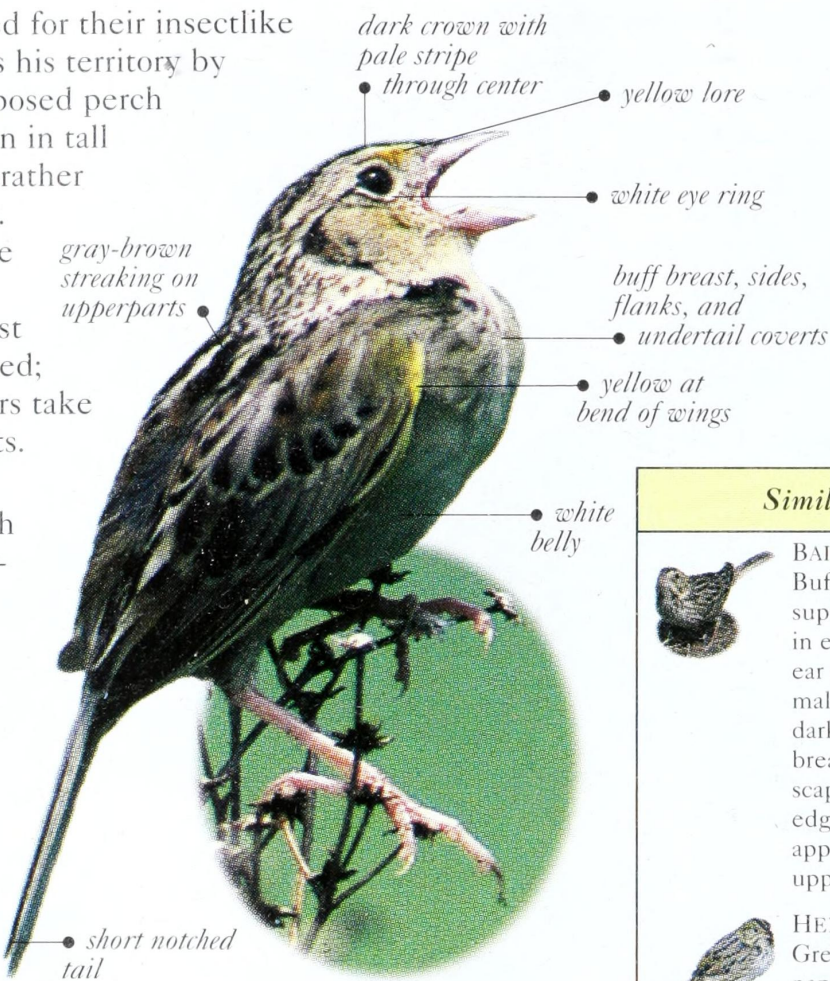
DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Ammodramus</i> <i>savannarum</i>	Length 4.75–5.5 inches	Wingspan 8–8.5 inches
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GRASSHOPPER SPARROW

These birds are named for their insectlike song. The male claims his territory by singing from a low exposed perch during the day. Hidden in tall grasses, this bird runs rather than flies from danger. Because it nests on the ground in cultivated grasslands, lives are lost when the crop is mowed; after mowing, predators take eggs, young, and adults.

- **SONG** High thin insectlike buzzing with 2 notes then a trill, *pit-tuck, zeeeeeeeeeeeeee*. At dusk may sing with more squeaky buzzy notes and trills. Call is soft insectlike *tisk*.
- **BEHAVIOR** Solitary or in pairs. May form small family groups after breeding season. Forages on ground and from low vegetation. Eats insects, worms, snails, seeds, and grains. Males sing from any exposed perch. When disturbed on nest, female flutters away in distraction display.
- **BREEDING** Monogamous Loose colonies.
- **NESTING** Incubation 11–12 days by female. Young altricial; brooded by female; stay in nest 9 days, fed by both sexes. 2–3 broods per year.
- **POPULATION** Common in cultivated fields, grasslands, prairies, savanna, and palmetto scrub. Declining in eastern part of its range.
- **CONSERVATION** Neotropical migrant. Uncommon host to cowbird parasitism. Declining due to changes in grasses grown and losses to agricultural operations. Threatened or endangered in Florida and parts of the Appalachian Mountains.



Similar Birds

-  **BAIRD'S SPARROW**
Buffy orange crown and supercilium; dark spot in each rear corner of ear patch; blackish malar mark; necklace of dark brown streaks on breast; chestnut scapulars with pale edging forming scaly appearance on upperparts.
-  **HENSLow'S SPARROW**
Greenish buff head and nape; blackish crown stripes; black-bordered ear patch; rusty brown upperparts edged whitish and streaked black; dark brown streaking on breast, sides, and flanks
• juvenile is paler and more washed with buffy head, nape, upperparts, and underparts; faint dusky streaking on sides • eastern range.
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Flight Pattern

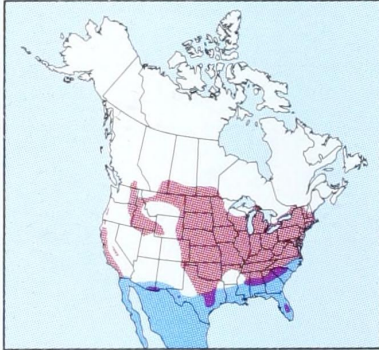


Flies close to the ground with a fluttering rapid undulating flight, similar to a wren.

Nest Identification

Shape  Location 

Dried grass with lining of rootlets, hair, and grass, partially domed on one side • in slight hollow on ground, sheltered by tall grasses • built by female
• 3–6 creamy white eggs with flecks and dots of reddish brown, occasionally wreathed; ovate, 0.8 x 0.56 inches.



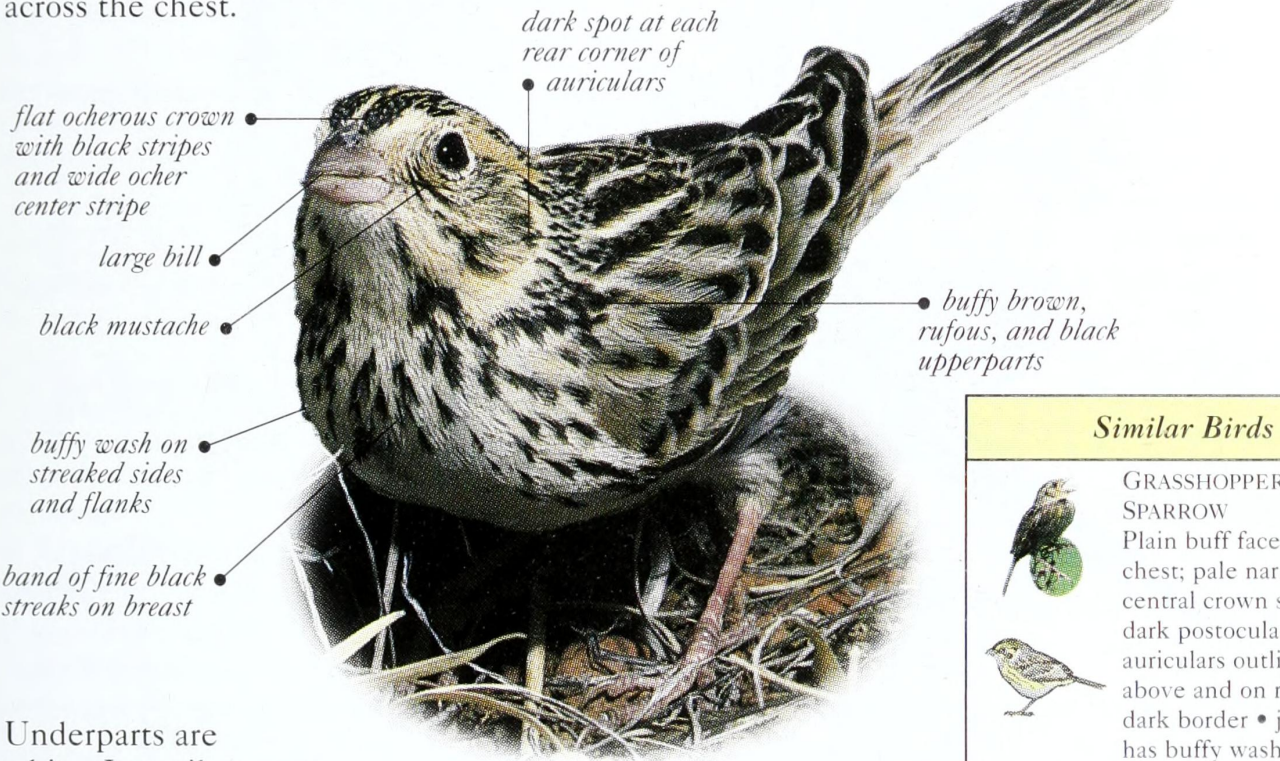
Plumage Sexes similar	Habitat 	Migration Migratory	Weight 0.8 ounce
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DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Ammodramus bairdii</i>	Length 5.5 inches	Wingspan 8.5 inches
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BAIRD'S SPARROW

On nesting grounds males establish territories by perching on a tussock or shrub and singing. In the 1870s this bird was one of the most abundant in the prairies of its region, but remnant populations now cling to the habitat remains. When frightened it scurries mouselike through the grass and hides. The best field marks on this elusive sparrow are the broad buff-ocher central crown stripe and the necklace of brownish black streaks across the chest.



- Underparts are white. Juveniles are more washed out and paler with less streaking on the underparts.
- **SONG** Silvery tinkling bell-like 2–3 notes, then lone warbled note, then trilling *zip-zip-zip-zr-r-rrrrrrrr*. Call is abrasive *chip*.
 - **BEHAVIOR** Solitary or in pairs. Difficult to observe unless singing. Flushed birds fly up and drop, running to hide. Forages on ground. Eats seeds, insects, and spiders.
 - **BREEDING** Monogamous. Loose colonies.
 - **NESTING** Incubation 11–12 days by female. Young altricial; brooded by female; stay in nest 8–10 days, fed by both sexes.

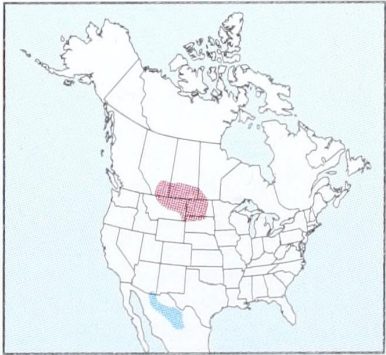
1 brood per year.

- **POPULATION** Uncommon and local on short-grass prairie and grasslands. Declining. Accidental on both coasts.
- **CONSERVATION** Neotropical migrant. Vulnerable to loss of prairie.

Similar Birds

GRASSHOPPER SPARROW
Plain buff face and chest; pale narrow central crown stripe; dark postocular stripe; auriculars outlined above and on rear with dark border • juvenile has buffy wash on streaked breast and sides.

SAVANNAH SPARROW
More extensive streaking on underparts; large central “stickpin” on chest (typically); conspicuous white to yellow narrow crown stripe; yellowish to white supercilium.



Flight Pattern

Short flights low over grasses with rapid wing beats alternating with brief periods of wings pulled to sides.

Nest Identification

Shape

Location

Dried grass and forbs, with lining of mammal hair and soft grass • in slight depression, set in tall grasses or near bush • built by female • 3–6 white to grayish white eggs; with lilac and reddish brown markings; oval, 0.8 inch long.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.8 ounce
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DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Ammodramus henslowii</i>	Length 4.75–5.25 inches	Wingspan 7–7.5 inches
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HENSLOW’S SPARROW

Upon arrival at the nesting grounds, the male begins singing day or night, rain or shine, perched or concealed. He cocks his tail down, elevates his head, and expels with a bodily shutter one of the shortest songs of any songbird. Occasionally, these sparrows battle one another in defense of territory. Their plumage serves as camouflage in the marshes and meadows. Juveniles resemble adults but are buffier and paler and have only faint streaking on their underparts.

- **SONG** Sings *flee-LICK*, like an explosive bird hiccup, with emphasis on the second note. Call is a thin high *tsip*.



- **BEHAVIOR** Solitary or in pairs. Unobtrusive, secretive, and easily overlooked, except for the persistent song of the male, from low concealed or higher exposed perches. Singing males allow reasonably close approach. Forages and skulks on ground among vegetation. Eats insects, caterpillars, and seeds.
- **BREEDING** Monogamous. Loose colonies.
- **NESTING** Incubation 11 days by female. Young altricial; brooded by female; stay in nest 9–10 days, fed by both sexes. 2 broods per year.
- **POPULATION** Uncommon in weedy meadows, grassy fields (especially wet), and reclaimed strip mine benches in pine-grass savannas in the West. Declining, particularly in the Northeast.

- **CONSERVATION** Some concern has been recorded. Uncommon host to cowbird parasitism. Vulnerable to habitat loss due to grazing, agricultural mowing operations, land clearing, and development.

Flight Pattern

Weak fluttering flight with jerking of tail, low over vegetation. Alternates rapid series of wing beats with brief periods of wings pulled to sides; repeated.

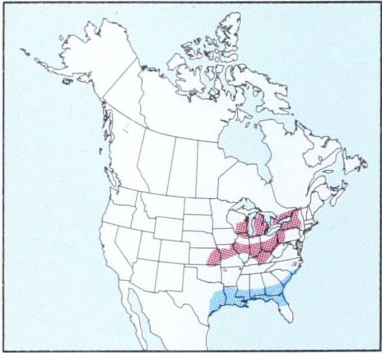
Nest Identification

Shape Location

Grass and forbs, with lining of fine grass and hair • on ground in slight hollow or sheltered by grassy clump or weeds • built by female • 3–5 creamy or pale greenish white eggs, marked with reddish browns, often wreathed; oval, 0.7 x 0.55 inches.

Similar Birds

GRASSHOPPER SPARROW—Brown to buffy head; pale central crown stripe; dark postocular stripe; buffy wash on white underparts, particularly on chest, sides, flanks, and crissum; lacks streaking on underparts.



Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.5 ounce
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DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Ammodramus leconteii</i>	Length 4.5–5.25 inches	Wingspan 6.5–7.25 inches
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LE CONTE'S SPARROW

One of the smallest sparrows, this bird is most often found in prairie wetlands. A secretive bird, Le Conte's Sparrow often scurries mouselike in thick cover when flushed, rarely flying, and only a few feet at a time when it does. The species has declined in some parts of its range with the disappearance of damp fields and other similar habitats. This sparrow is a casual migrant in the Northeast and West, traveling only short distances off the main migration pathways. Juveniles are buffier overall and are heavily streaked on their underparts.



- **SONG** Call resembles a short shrill grasshopper-like buzz. High-pitched and thin, it has a short squeaky introductory note followed by a buzzy trill and ending with a final chip note. Call note is a thin tsip.
- **BEHAVIOR** Solitary or in pairs. Secretive. Skulking. Walks and runs on ground to forage within matted vegetation, often in wet grasslands and bogs. In winter months, combs ground for seeds from grass and weeds. During summer, eats wide variety of insects, seeds, and spiders. Territorial male sings from exposed perch, with head pulled back and bill pointed skyward.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 12–13 days by female. Young altricial; brooded by female; stay in nest estimated 8–10 days, fed by both sexes. 1–2 broods per year.
- **POPULATION** Fairly common and somewhat local in wet meadows, bog, and marsh edges. Declining in parts of range.

Similar Birds



NELSON'S SHARP-TAILED SPARROW
Broad blue-gray crown stripe; unstreaked blue-gray nape; less color contrast on upperparts; olive-brown body with whitish streaks; frequents marsh habitat.



GRASSHOPPER SPARROW
Whitish to buff eyebrows; brown, black, and buff nape; brown auricular patch with dark borders; whitish underparts with buffy wash on chest and sides; lacks streaks on breast and sides.

Flight Pattern

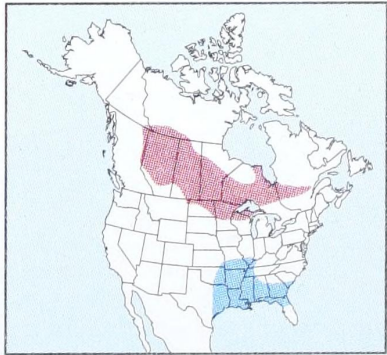


Alternates of rapid wing beats with brief periods of wings pulled to sides; flies short distances before dropping back into grass.

Nest Identification

Shape  Location 

• **CONSERVATION**
Uncommon host to cowbird parasitism. Vulnerable to loss of habitat due to draining of wetlands and development of habitat for agriculture.



Grass, rushes, and stems, lined with fine materials • usually on or near ground • built by female • 3–5 grayish white eggs with brown spots; ovate, 0.7 x 0.53 inches. -

Plumage Sexes similar	Habitat  	Migration Migratory	Weight 0.5 ounce
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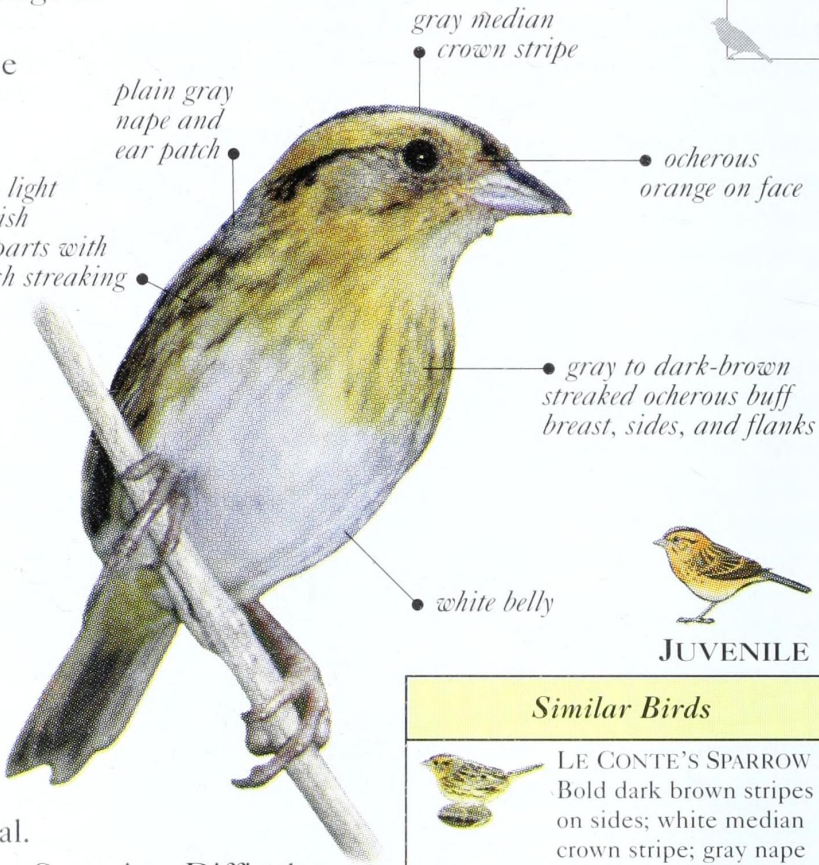
DATE _____ TIME _____ LOCATION _____

Family	EMBERIZIDAE	Species	<i>Ammodramus nelsoni</i>	Length	4.75 inches	Wingspan	7.25 inches
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NELSON'S SHARP-TAILED SPARROW

Its streaked plumage serves as camouflage in the dense freshwater marsh grasses it inhabits in Canada, the northern prairie marshes of the US, and parts of Maine. When frightened, it scampers mouselike, with its head held low, and does not fly. It recently was determined to be a separate species from the Saltmarsh Sharp-tailed Sparrow; both were formerly lumped together under the name Sharp-tailed Sparrow. Adults show whitish or gray streaking on scapulars. Juveniles have buffier underparts and buffy heads without the gray auriculars and nape and lack streaking on the breast and flanks.

- **SONG** An explosive wheezy descending *p-tsssshh-uk*, like the sound of cold water tossed on hot metal.
- **BEHAVIOR** In pairs or small groups. Secretive. Difficult to observe unless male is singing, which it does from conspicuous perches. Curious, and will come up in vegetation and draw closer to pishing and squeaking by birders. Walks around on ground and picks up food or gleans from vegetation. Eats insects, their caterpillars, various seeds, and small snails. Males loosely territorial or nonterritorial. Flushed birds usually fly short distance before dropping back down into dense cover.
- **BREEDING** Polygamous. Loose colonies.
- **NESTING** Incubation 11 days by female. Young altricial; brooded by female; stay in nest 10 days, fed mostly by female. 1 brood per year.
- **POPULATION** Fairly common in wet meadows, freshwater marshes, and tule beds. Numbers decline with habitat drainage.



JUVENILE

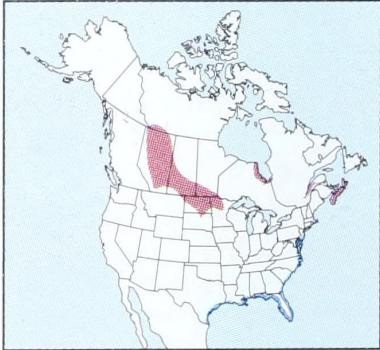
Similar Birds



LE CONTE'S SPARROW
Bold dark brown stripes on sides; white median crown stripe; gray nape with chestnut streaking; straw-colored streaking on back and scapulars; lives in prairies
• juveniles have heavily streaked underparts.



SALTMARSH SHARP-TAILED SPARROW
Larger orange-buff facial triangle contrasts sharply with body; larger bill; black-streaked supercilium behind eye
• juveniles have heavily streaked underparts
• eastern range.



- **CONSERVATION** Rare host to cowbird parasitism. Vulnerable to loss of habitat due to marsh draining and agricultural practices, including cattle grazing.

Flight Pattern

Short flights low over vegetation, with rapid wing beats alternating with brief periods of wings pulled to sides; repeated.

Nest Identification

Shape Location

Dried grasses and stems • atop grassy tussock or on pile of reeds • built by female • 3–7 light green eggs, with heavy brown spotting; oval, 0.76 x 0.57 inches.

Plumage	Sexes similar	Habitat		Migration	Migratory	Weight	Undetermined
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DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Ammodramus caudacutus</i>	Length 5 inches	Wingspan 7.5 inches
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SALTMARSH SHARP-TAILED SPARROW

This bird was formerly lumped in one species, the Sharp-tailed Sparrow, with the Nelson's Sharp-tailed Sparrow. Its recent taxonomic split gives it the distinction of tying for the longest English name of any bird species in North America. Making its home in the Atlantic coastal marshes, it walks on the ground in search of food and scurries through the grasses, head down and mouselike, when frightened. If flushed into flight, it flutters weakly, with its tail jerking, for a short distance before dropping back down into dense cover.

- **SONG** A soft insectlike *ts-ts-sssss-tsik*. Call is a sharp *chuck*.
- **BEHAVIOR** In pairs or small groups. Males are weakly territorial and sometimes do not defend territory at all. Skulking and somewhat secretive. Males sing from exposed perches. Curious, this bird will investigate squeaking or pishing by birders. Forages on ground and in dense vegetation to glean food from surfaces. Eats insects, caterpillars, seeds, small crustaceans, and snails.
- **BREEDING** Polygamous. Colonial.
- **NESTING** Incubation 11 days by female. Altricial young brooded by female; stay in nest 10 days, fed by female. 2 broods per year.
- **POPULATION** Uncommon to fairly common and somewhat local primarily in saltwater marshes. Declining.



Similar Birds

-  **NELSON'S SHARP-TAILED SPARROW**
Shorter bill; head is less flat; less defined markings on head and around eye; more intense ocherous buff on breast, sides, and flanks • juveniles are buffy overall, with the much reduced streaking on underparts restricted to sides.
-  **SEASIDE SPARROW**
Larger; darker grayer upperparts; longer heavier bill; yellow supraloral patch; dark malar stripe separates white mustache from white throat; broadly streaked underparts.



Flight Pattern



Short flights with rapidly beating wings alternating with brief periods of wings pulled to sides; repeated.

Nest Identification

Shape 	Location   
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• **CONSERVATION** Rare host to cowbird parasitism. Destruction of coastal salt marshes by draining and because of development has significantly reduced populations of this species.

Reeds, grasses, and seaweed, with lining of finer materials • on ground, set in grasses or reeds • built by female • 3–7 pale greenish eggs, marked with reddish browns; short ovate to ovate, 0.8 x 0.6 inches.

Plumage Sexes similar	Habitat 	Migration Migratory	Weight 0.7 ounce
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DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Ammodramus maritimus</i>	Length 5.25–6.5 inches	Wingspan 8–8.5 inches
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SEASIDE SPARROW

This shy bird makes its home in the salt marshes of the eastern coasts. Like many sparrows, the male perches atop reeds, grasses, or fences to sing his territorial song. Walking or running on the ground, its large feet prevent it from sinking in the soft marsh mud. There is much variation in size and color across the range, but the most widespread race, *A. m. maritimus*, is pictured here.

Another race, *A. m. nigrescens*, is darkest, with the heaviest streaking on the underparts, and was formerly recognized as the species Dusky Seaside Sparrow. Found only near Titusville, Florida, it became extinct in 1987. Another species, *A. m. mirabilis*, called Cape Sable Sparrow, also found only in the Florida Everglades, is listed as federally endangered. All races show rufous greater primary coverts. Juveniles are duller with finer streaking on the underparts.

- **SONG** Harsh buzzy *oka-cheee-weee*, reminiscent of Red-winged Blackbird. Call note is *chip*.
- **BEHAVIOR** In pairs or small groups. Forages on ground, gleaning food as it walks upright, like a small rail; also wades, rail-like, in shallow water. Eats small snails, terrestrial and aquatic insects, crabs and other small crustaceans, and some seeds. Males fly 20–30 feet high in fluttering skylarking display flights and slowly descend back down to a perch — singing all the while.
- **BREEDING** Monogamous. Loose colonies.
- **NESTING** Incubation 12–13 days by female. Young altricial; brooded by female; stay in nest 8–10 days, fed by both sexes. 1–2 broods per year.
- **POPULATION** Fairly common in coastal salt marshes but declining from destruction of this habitat.
- **CONSERVATION** Rare host to cowbird parasitism.

Destruction of coastal marshes, application of DDT in the 1970s, and flooding of marshes for mosquito control led to the extinction of one race and contributed to the near extinction of another in Florida, as well as the significant decline of other populations.

Flight Pattern



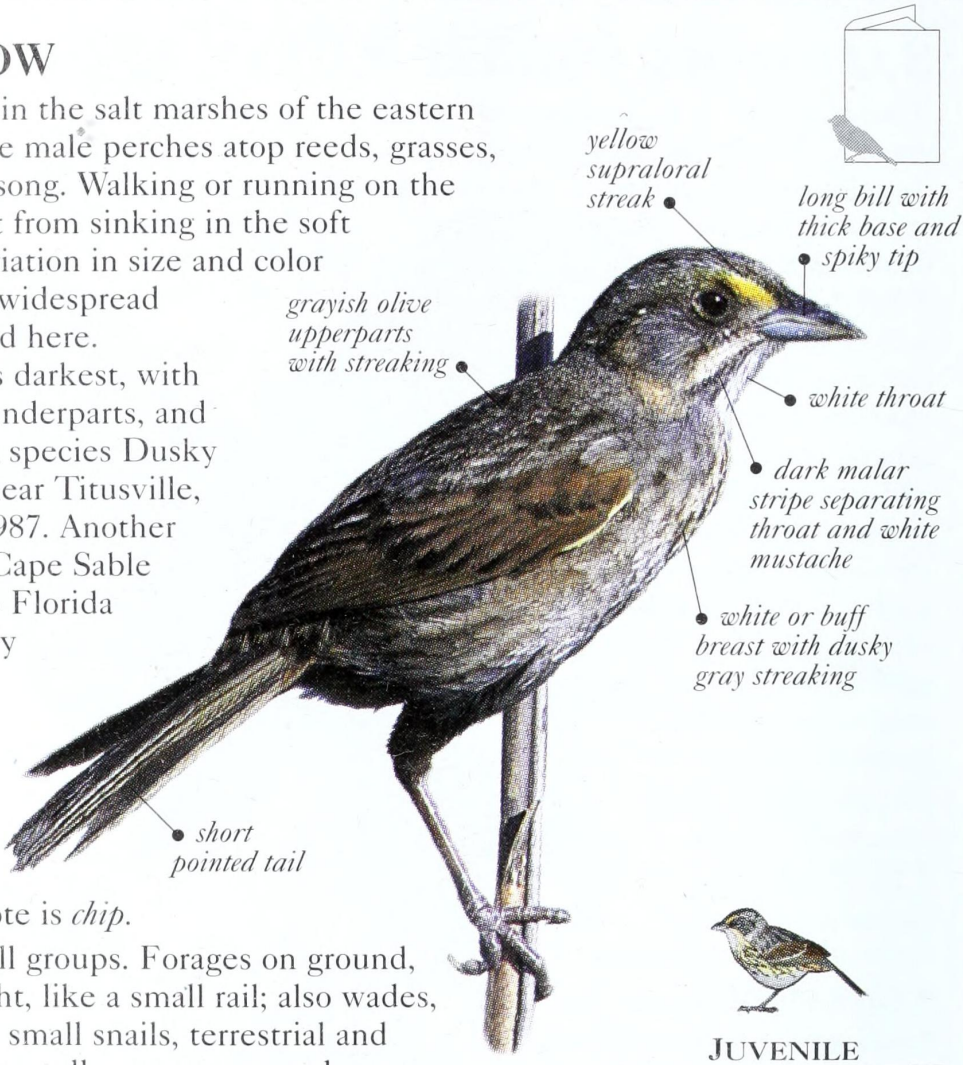
Short flights low over vegetation on rapidly beating wings alternating with brief periods of wings pulled to sides.

Nest Identification

Shape 

Location 

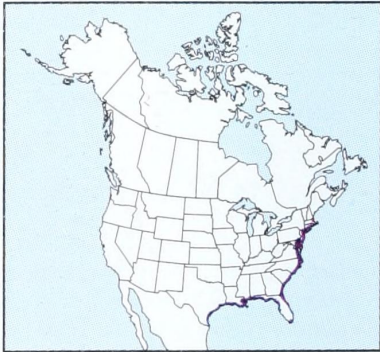
Dried grass and sedges • lined with soft finer grasses • attached to marsh reeds or set on clump of grass, from 9–11 inches to 5 feet above mud (but up to 14 feet) • built by female • 3–6 white to pale greenish eggs, marked with reddish browns; short ovate to elongated ovate, 0.8 x 0.6 inches.



Similar Birds



SALTMARSH SHARP-TAILED SPARROW
Smaller; paler; buffier in overall color; ochreous orange triangle frames gray ear patch; whiter underparts with sharper dark streaking on breast, sides, and flanks; black crown patch; gray nape.



Plumage Sexes similar	Habitat 	Migration Northern birds migrate	Weight 0.8 ounce
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Family EMBERIZIDAE	Species <i>Passerella iliaca</i>	Length 6.75–7.5 inches	Wingspan 10.5–11.75 inches
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FOX SPARROW

Named for its rufous coloring, particularly on the rump and tail, the Fox Sparrow is one of the largest of all sparrows. There is much variation in size and coloration over the wide breeding range. The most richly plumaged birds breed in the boreal forests from Alaska to Newfoundland and are the forms seen in winter in the southeastern US, such as the *P. i. zaboria* pictured here. In the western mountain races, birds have gray heads and backs, while northwestern Pacific coastal races are sooty brown with dark brown rumps and tails.

While mostly solitary, this sparrow sometimes is observed associating with other sparrows. Migrates in late March and early November, generally traveling at night.

• **SONG** Each male has a large repertoire of songs, singing one after the other until his entire suite is exhausted before beginning again. Rich flutelike sweet melody in northern reddish races; other races include grating trills. Variable, each phrase rises in pitch then falls on closing notes. Call is loud *smack* or drawn-out *stsssp*.

• **BEHAVIOR** Solitary or in pairs in breeding season. Small flocks in migration and on wintering grounds. Forages by double-scratching, towheelike, on ground and digging small holes by kicking backward with claws. Eats weed seeds, wild fruits and berries, insects, spiders, millipedes, and small snails.

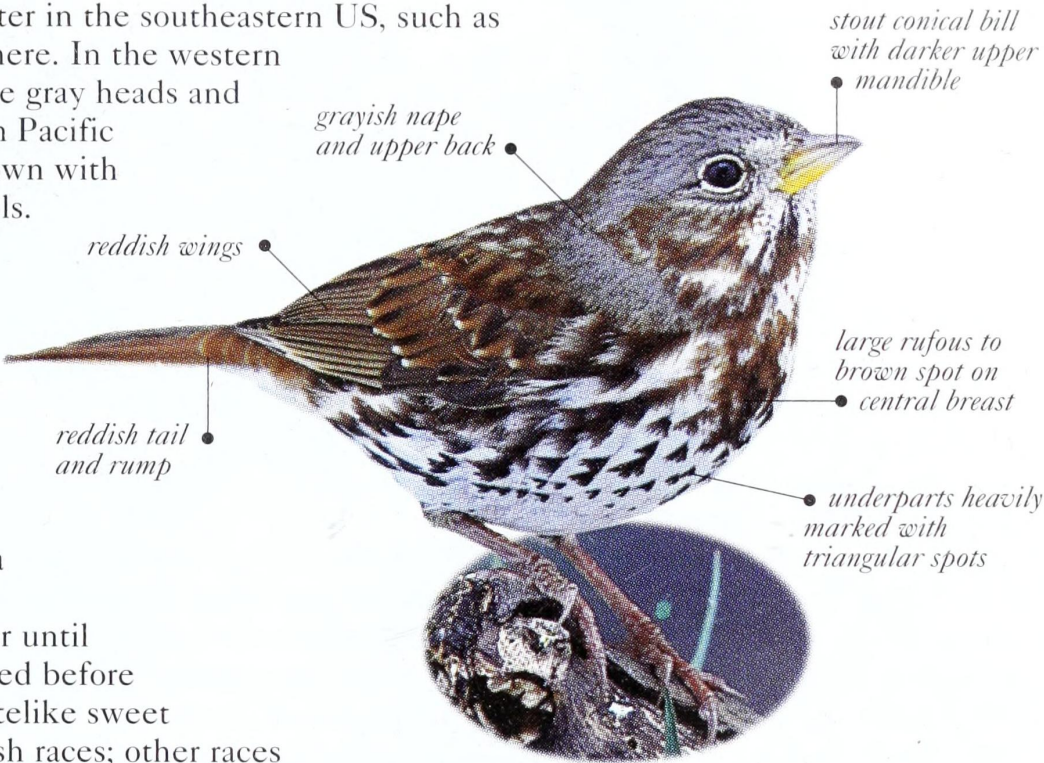
• **BREEDING** Monogamous. Solitary.

• **NESTING** Incubation 12–14 days by female. Young altricial; brooded by female; stay in nest 9–11 days, fed by both sexes. 2 broods per year.

• **POPULATION** Uncommon to common in deciduous or conifer forest, undergrowth, chaparral, montane thicket, and riparian woodland. Declining in East.

• **FEEDERS** Birdseed and breadcrumbs attract it to ground underneath feeders.

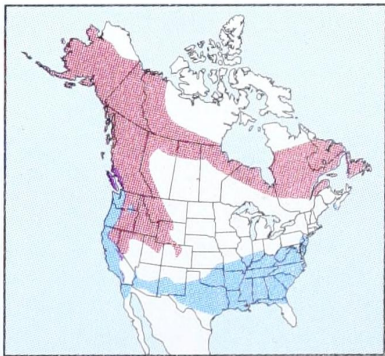
• **CONSERVATION** Rare cowbird host. Vulnerable to habitat loss due to logging operations and development.



Similar Birds



HERMIT THRUSH
Reddish tail; lacks streaking on brownish back; brown to gray-brown upperparts; whitish gray underparts; thin bicolored bill with dark tip and creamy pinkish yellow base; spotted breast, sides, and flanks.



Flight Pattern

Short flights on rapidly beating wings alternating with brief periods of wings pulled to sides.

Nest Identification

Shape Location

Lichen, roots, bark, leaves, twigs, grass, feathers, and animal fur • lined with grass and moss • on ground or in shrub, rarely on branch of tree • 0–3 feet above ground (rarely up to 20 feet) • built by female • 2–5 pale green to greenish white eggs, with reddish brown markings; oval, 0.9 inch long.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.1 ounces
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DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Melospiza melodia</i>	Length 5.75–7.5 inches	Wingspan 8.25–12.5 inches
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SONG SPARROW

Even with its drab plumage, this bold songbird is easy to spot when it perches in the open, trilling its pleasant melody. In flight it pumps its tail up and down. Inhabiting a wide range, this bird is found throughout most of North America and is perhaps the continent's most variable species, with approximately thirty-one subspecies recognized. The Aleutian race, *M. m. maxima*, is so large and dark it looks like a

different species. Because of the work of Ohio bird biologist Margaret Morse Nice, the biology of this bird may be the best-known of any songbird on the continent. Juveniles are similar to adults but appear buffier overall with finer streaking.

- **SONG** Whistles 2–3 clear introductory notes, followed by a trill. Much variation in each individual's song and between individuals. Call is *chimp* or *what* and a high thin *ssst*.
- **BEHAVIOR** Solitary or in pairs. May be in small loose flocks in winter, often with other species of sparrows. Forages in trees, bushes, and on ground by picking food off foliage, grass, and soil; also scratches on ground. Eats insects, larvae, grains, seeds, berries, and some fruits. Coastal species take small mollusks and crustaceans. Males sing from exposed perches to claim territory.
- **BREEDING** Monogamous. Polygynous in some cases. Male vigorously defends territory and battles with other males. Often chases invading birds from territory.
- **NESTING** Incubation 12–14 days by female. Young altricial; brooded by female; stay in nest 9–16 days, fed by both sexes. 2–3 broods per year (occasionally 4 in southern parts of range).
- **POPULATION** Widespread and abundant to common in brushy

areas, thickets, riparian scrub, weedy fields, urban/suburban lawns, and forest edge.

- **FEEDERS** Birdseed.
- **CONSERVATION** Species is one of the most frequent victims of parasitism by the Brown-headed Cowbird.

Flight Pattern

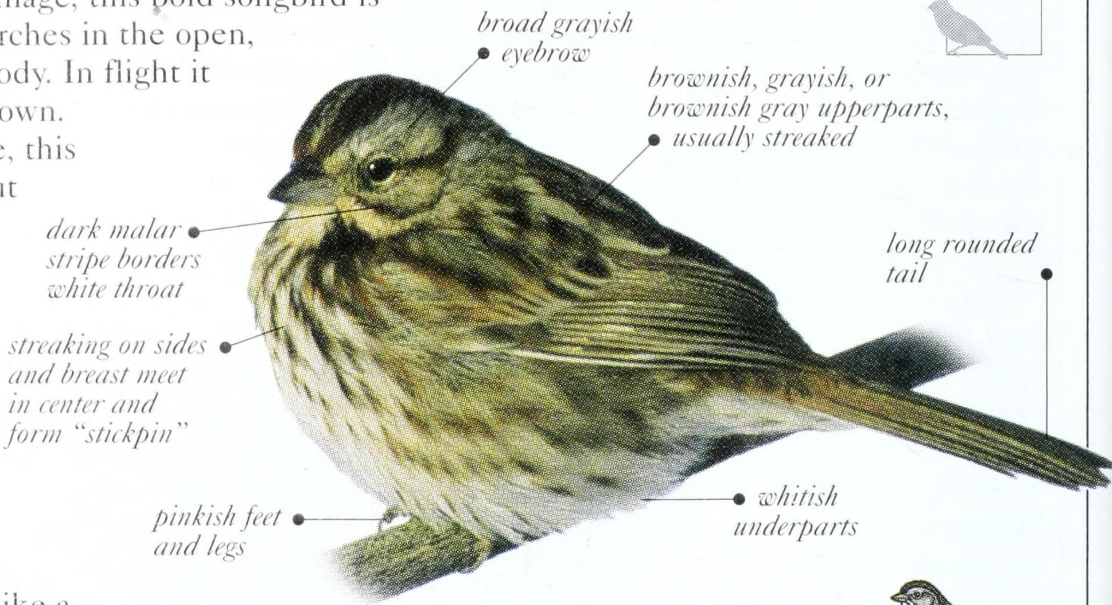
Short flights close to ground, tail pumping up and down. Alternates rapid wing beats with brief periods of wings pulled to sides.

Nest Identification

Shape

Location

Grass, forbs, leaves, and bark strips, with lining of fine materials • usually on ground, sheltered by grassy tussock or reeds • sometimes in bush or tree, 2–4 feet above ground (but up to 12 feet) • built by female • 2–6 greenish white eggs, marked with reddish browns; oval to short oval, 0.8 x 0.61 inches.

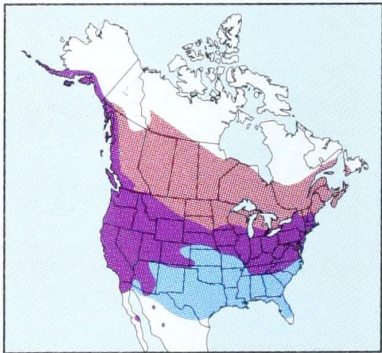


ALEUTIAN RACE

Similar Birds

SAVANNAH SPARROW
Yellowish above eye; shorter notched tail; pinker legs; finer streaking on upperparts; central "stickpin" on chest.

LINCOLN'S SPARROW
Smaller; buff wash on chest; more distinct markings; finer streaking on throat, breast, sides, and flanks; lacks central "stickpin" on chest.



Plumage Sexes similar	Habitat	Migration Northern birds migrate	Weight 0.7 ounce
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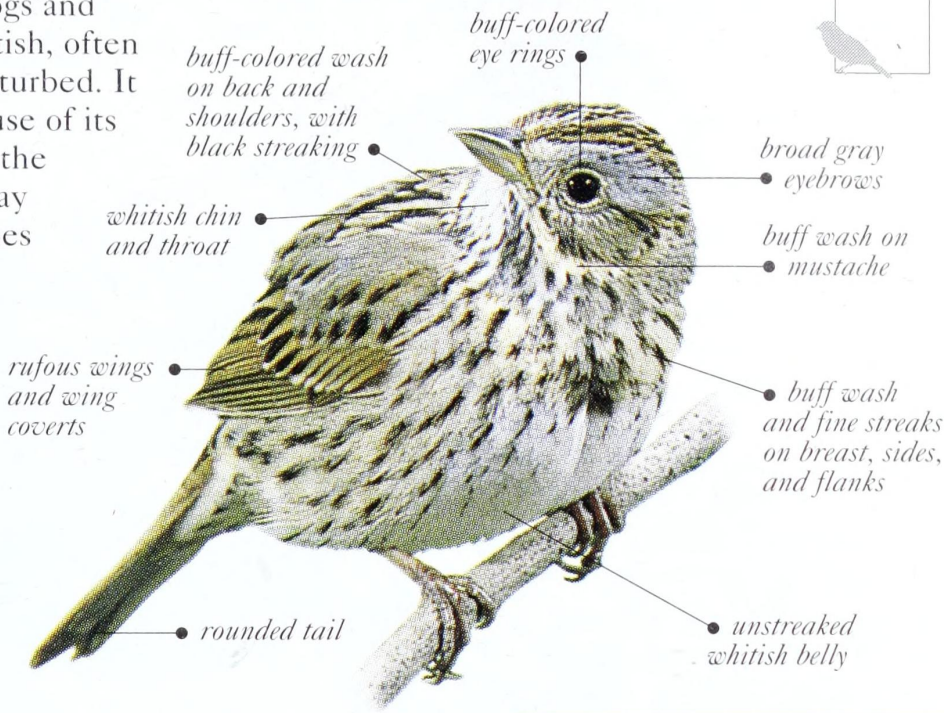
DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Melospiza lincolni</i>	Length 5.25–6 inches	Wingspan 7.25–8.75 inches
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LINCOLN'S SPARROW

This inhabitant of northern bogs and mountain meadowlands is skittish, often raising its slight crest when disturbed. It is sometimes overlooked because of its furtive habits and similarity to the Song Sparrow, with which it may compete when nesting territories overlap. This sparrow can be distinguished by its sweet gurgling melody that sounds similar to that of a House Wren or Purple Finch, and by the buffy band crossing the chest and separating the white chin and throat from the white lower breast and belly. Juveniles are paler and buffier overall with more streaking on their underparts.

- **SONG** Features rapid bubbling trilled notes, with last notes harsher, louder, and lower in pitch, *chur-chur-chur-wee-wee-wee-wee-wah*. Alarm call is a flat-toned repetitious *tschup*. Calls also include a sharp buzzlike *zee*.
- **BEHAVIOR** Solitary or in pairs. Sometimes joins mixed-species foraging flocks on wintering grounds. Secretive. Skulks low in thickets or on ground. Kicks backward with both feet like a towhee as it scratches among leaves on the ground; feeds on insects and small grains, as well as seeds from weeds and grasses. In migration, often found in brushy tangles near water. Often sings from a concealed perch during spring migration.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 12–14 days by female. Young altricial; brooded by female; stay in nest 9–12 days, fed by both sexes. 1–2 broods per year.
- **POPULATION** Uncommon to fairly common in bogs, wet meadows, riparian thickets, and mountain meadows. Uncommon to fairly common in thickets and weedy fields in winter.



Similar Birds



SONG SPARROW
Longer tail; thicker bill; thicker malar stripe; heavier streaking on underparts; central "stickpin" on chest; white underparts lack buffy wash on chest; brown upperparts with rufous and black streaking.



SWAMP SPARROW
Duller breast with thinner blurry streaks; gray head; rufous-brown crown with gray central stripe; unstreaked white throat; rufous wings and primary coverts.

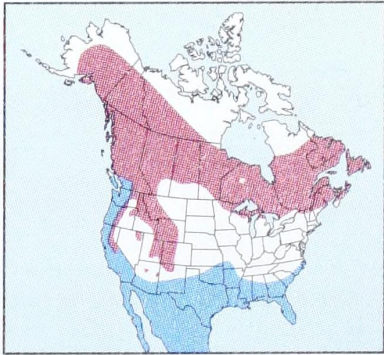
Flight Pattern

Short flights with rapid wing beats alternating with brief periods of wings pulled to sides; repeated.

Nest Identification

Shape Location

- **FEEDERS** Attracted by seed, particularly in migration.
- **CONSERVATION** Neotropical migrant. Rare host to cowbird parasitism. Vulnerable to loss of habitat because of logging operations and development.



Grass or sedge lined, sometimes with hair • often built in grass, hollow depressions, or moss • built by female • 3–6 pale green to greenish white eggs, with reddish brown markings; oval to short oval, 0.8 x 0.6 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.8 ounce
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DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Melospiza georgiana</i>	Length 4.75–5.75 inches	Wingspan 7.5–8 inches
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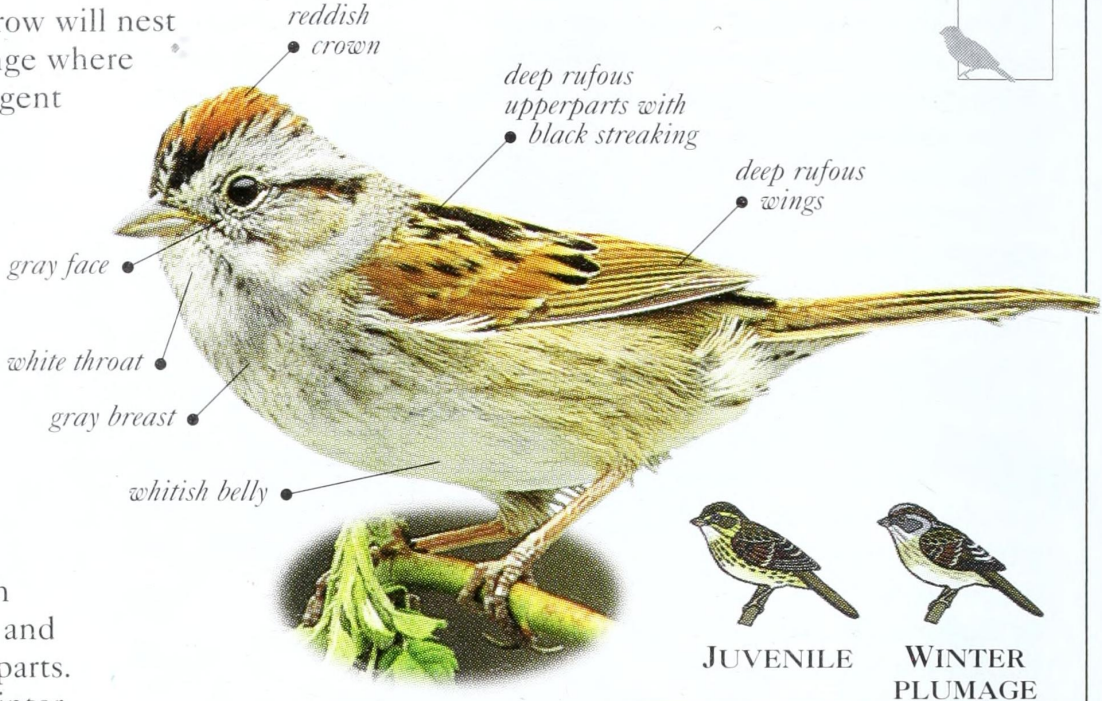
SWAMP SPARROW

This small stocky sparrow will nest anywhere within its range where there is sufficient emergent dense vegetation in marshes, bogs, wet meadows, or sluggish streams. As nestlings learn to fly, they must stay above the water, so as not to be eaten by turtles, frogs, or fish. Adult females are similar to males but have brown-striped crowns. Juveniles are buffy with reddish wings and tails and heavily streaked underparts. Immatures resemble winter adults with rich buff sides, gray central crown stripe, and buffy wash overall.

- **SONG** A bold slow melodious musical trill of either sharp single-note or slurred double-note phrases, *peat-peat-peat-peat-peat-peat-peat*. Has a call of *zee* or *chip*.
- **BEHAVIOR** Solitary or in pairs in breeding season. May form loose flocks in winter. Secretive and skulking in dense vegetation or on ground. Curious, it will come to pishing or squeaking by birders. Forages by wading in water and picking up food with bill or by gleaning prey from vegetation or ground. Eats insects and seeds. Male sings to claim territory.
- **BREEDING** Monogamous. Loose colonies. Male often feeds incubating or brooding female while on nest.
- **NESTING** Incubation 12–15 days by female. Young altricial; brooded by female; stay in nest 11–13 days, fed by both sexes. 2 broods per year.
- **POPULATION** Common in marshes, bogs, and riparian stands of reeds, cattails, and sedges. Rare in the West. Some

population declines due to loss of marsh habitat.

- **CONSERVATION** Neotropical migrant. Common host to cowbird parasitism. Vulnerable to habitat loss due to draining of wetlands, livestock overgrazing, and development.

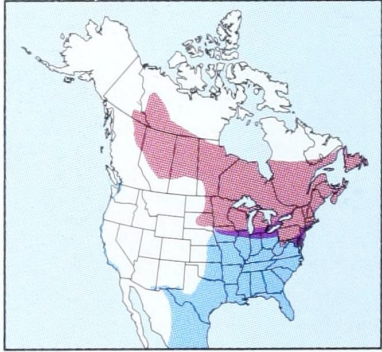


Similar Birds

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WHITE-THROATED SPARROW
Stockier; larger; yellow supraloral spot; whitish or buff supercilium; two whitish wing bars; gray underparts; white-and-black- or brown-and-tan-striped crown.
- 

LINCOLN'S SPARROW
Buffy back and shoulders with black streaking; buffy breast band, sides, and flanks; black streaking on throat, breast, sides, and flanks; broad gray supercilium; brown crown with black streaks; buffy eye ring.



Flight Pattern	
	
Short flights low over vegetation on rapidly beating wings alternating with brief periods of wings pulled to sides.	
Nest Identification	
Shape 	Location 

Dry thick grasses with lining of finer grasses • set in reeds, usually 0–5 feet above water • in some areas, in bush near water, 1–6 feet above ground • built by female • 3–6 greenish white eggs, marked with reddish browns; short subelliptical, 0.8 x 0.57 inches.

Plumage Sexes differ	Habitat  	Migration Migratory	Weight 0.8 ounce
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DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Zonotrichia albicollis</i>	Length 6.25–7.5 inches	Wingspan 8.75–10 inches
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WHITE-THROATED SPARROW

The song of the White-throated Sparrow is heard in the Canadian wilderness and in the northeastern US where it breeds in woodland undergrowth, clearings, and gardens. Distinguishing marks include a broad yellow eyebrow, or supraloral stripe in the front of the eye, which tapers to either white or tan, and a sharply outlined white throat. Although it is common and widespread, sightings of this bird are rare in the West.

- **SONG** A thin whistle, starting with 2 single notes followed by 3 triple notes: *poor-sam-peabody, peabody, peabody* or *pure-sweet-Canada, Canada, Canada*. Calls include a grating *pink* and a drawled lisp *ing tseep*. Territorial birds often sing at night. Some black-and-white-striped females sing.
- **BEHAVIOR** Solitary or in pairs. In winter joins flocks of other White-throats and mixed species. Hops on ground or forages in shrubs and trees. Scratches among leaves for food. Eats mostly weed seeds, fruit from trees, tree buds, and insects. May hawk insects in midair. Attracted by pishing and squeaking by birders. Two adult color morphs are based on head striping: black-and-white-striped and brown-and-tan-striped. Field studies show that white-striped males tend to mate with tan-striped females, and tan-striped males tend to mate with white-striped females.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 11–14 days by female. Young altricial; brooded by female; stay in nest 7–12 days, fed by both sexes. 1–2 broods per year.
- **POPULATION** Common and widespread in conifer and mixed-

conifer forest, forest edge and clearings, and thickets. Rare in the West.

- **FEEDERS** Seeds and grains.
- **CONSERVATION** Uncommon host to cowbird parasitism. Vulnerable to habitat loss due to logging.



JUVENILE



TAN-STRIPED

Similar Birds



WHITE-CROWNED SPARROW
Black-and-white-striped crown; pink bill; lacks whitish throat contrasting with gray breast; lacks yellow supraloral spot; tertials lack bright rufous coloring.



HARRIS SPARROW
Winter adult and juvenile • slightly larger; pink bill; crown varies from tan with black stippling, to black with white spotting, to black; face buffy tan; chin varies from white to blackish; throat white, black-and-white, or black; blackish band crossing upper breast.

Flight Pattern



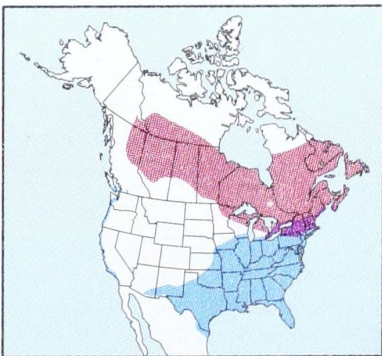
Relatively short flights with rapid wing beats alternating with brief periods of wings pulled to sides; repeated.

Nest Identification

Shape

Location

Lined with coarse grass, wood chips, twigs, pine needles, roots, and other fine materials • often found at edge of clearing • 0–3 feet above ground • built by female • 3–6 greenish, bluish, or cream-white eggs with reddish brown markings; subelliptical or long elliptical, 0.8 x 0.6 inches.



Plumage Sexes similar	Habitat	Migration Migratory	Weight 0.9 ounce
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DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Zonotrichia querula</i>	Length 6.75–7.75 inches	Wingspan 10.25–11.75 inches
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HARRIS'S SPARROW

This large sparrow is named after Edward Harris, one of John James Audubon's expedition partners. Where it nested was one of the great ornithological mysteries of the early 20th century. The nest was seen and documented in 1931, making this the last songbird to have its nesting information recorded. In winter, breeding plumage is replaced by a buffy face, all or mostly black crown, black chin, and throat that varies from all black to having a white band through it. The amount of black on the winter bird is under hormonal control and signals social dominance; the more black the higher its rank in the pecking order of the flock. Juveniles are similar to winter adults but show less black on the crown and upper breast and have a white throat bordered by a black malar mark.

- **SONG** Repeated clear tremulous whistles in 1 pitch, followed at an interval by several clear notes in another pitch. Calls sound like a loud metallic *spink* and a drawn-out *tseep*.
- **BEHAVIOR** Solitary or in pairs. Shows faithfulness to wintering territories. Forages on ground by kicking and scratching among leaf litter and dry weed stalks. Bulk of diet is wild fruits, grains, and seeds from grass and weeds; also eats insects, spiders, and snails. Breeds among stunted trees and shrubs in taiga-tundra ecotone.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 12–15 days by female. Altricial young brooded by female; stay in nest estimated 7–12 days, fed by both sexes. 1 brood per year.

Flight Pattern

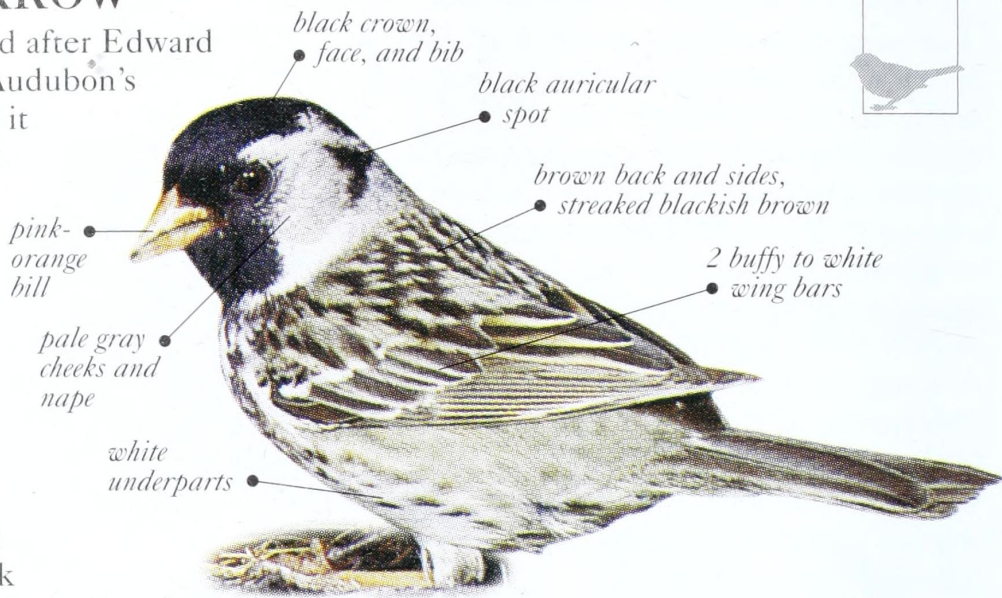


Series of rapid wing beats alternating with brief periods of wings pulled to sides; repeated.

Nest Identification

Shape 	Location 
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Lined with grass and coarse roots • in depression on ground under stunted woody vegetation or moss hummock • built by female • 3–5 white to greenish white eggs with brown markings; ovate to elliptical ovate, 0.9 x 0.7 inches.



JUVENILE



WINTER PLUMAGE

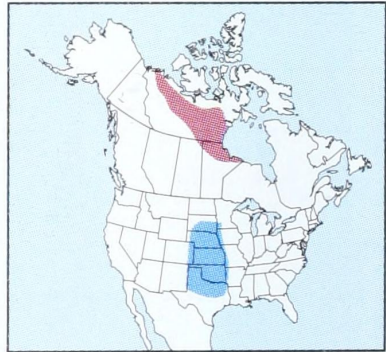
Similar Birds



WHITE-CROWNED SPARROW
Black-and-white-striped crown; pink bill; mostly gray underparts; brown upperparts with blackish brown streaks on back and shoulders; 2 white wing bars; brown rump • juvenile similar to adult but with gray-and-brown-striped head.



WHITE-THROATED SPARROW
Distinctly outlined white throat; dark bill; black-and-white- or brown-and-tan-striped crown; broad eyebrow yellow in front of eye, remainder is white or tan; 2 white wing bars.



Plumage Sexes similar	Habitat   	Migration Migratory	Weight 1.4 ounces
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DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE

Species *Zonotrichia leucophrys*

Length 6.5–7.5 inches

Wingspan 9.25–10.25 inches

WHITE-CROWNED SPARROW

This bold bird is easy to identify, with conspicuous black stripes on its white crown, a pink to dull yellow bill, and a pale gray throat.

Like many sparrows, the male sings to claim its territory and duels to defend its ground.

His songs may even continue into the night.

As is usual with a wide geographical range, there is morphological and behavioral variation. The most striking subspecies differences include

bill color and white versus black supralorals. Juveniles have heavily streaked underparts and a brown-and-buff-streaked head. Immatures have a brown-and-tan-striped head and unstreaked underparts.

- **SONG** A melancholy whistled *poor-wet-wetter-chee-zee*. Has call note of *pink* or sharp *tseek*.

- **BEHAVIOR** Solitary or in pairs. In small family groups after breeding season. Forms flocks in winter. Males sing from exposed perches; sometimes in spring on wintering grounds. Gleans food from vegetation; hops on ground and forages by scratching. Eats seeds, insects, caterpillars, and parts of plants.

- **BREEDING** Monogamous. Individuals in some nonmigratory populations may pair for life. Some polygynous.

- **NESTING** Incubation 11–14 days by female. Young altricial; brooded by female; stay in nest 7–12 days, fed by both sexes. Male continues to feed young while female starts another nest. 2–4 broods per year (largest number of broods in southern populations; 1 brood in far north).

- **POPULATION** Common to fairly common in woodlands, thickets, wet meadows, and chaparral.

Flight Pattern



Short flights on rapidly beating wings alternating with brief periods of wings pulled to sides; repeated.

Nest Identification

Shape Location

- **FEEDERS** Baby chick scratch and seeds.

- **CONSERVATION** Neotropical migrant.

Uncommon host to cowbird parasitism. Vulnerable in the West to habitat loss because of land development and logging.

Grass, sticks, rootlets, and forbs • lined with soft grasses, feathers, and hair • on clump of grass or moss, sheltered by bush, or in small tree • 0–5 feet above ground (but up to 30 feet) • built by female • 2–6 light blue or green eggs marked with reddish browns; ovate to short ovate or long ovate, 0.8 x 0.6 inches.

white supercilium

black postocular stripe

brownish upperparts with blackish brown streaking

2 white wing bars

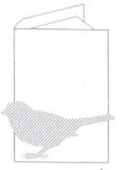
brownish wash on sides and flanks

white crown with bold black stripes

pink to dull yellow bill

whitish gray throat

grayish underparts become white on belly



JUVENILE



FIRST WINTER

Similar Birds



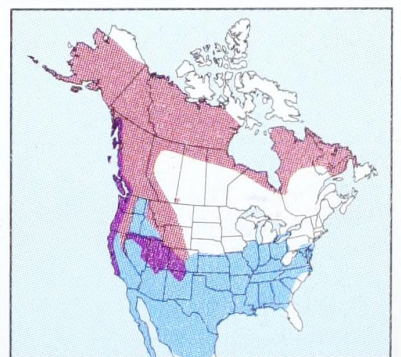
WHITE-THROATED SPARROW

More rufous-brown upperparts; mostly dark bill; well-defined white throat patch; yellow spot between eye and bill; gray underparts; two white wing bars; black-and-white- or brown-and-tan-striped cap.



HARRIS'S SPARROW

Winter adult and juvenile • slightly larger; pink bill; crown varies from tan with black stippling, to black with white spotting, to black; face buffy tan; chin varies from white to blackish; throat white, black-and-white, or black; blackish band crossing upper breast.



Plumage Sexes similar

Habitat

Migration Northern birds migrate

Weight 1.0 ounce

DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Zonotrichia atricapilla</i>	Length 7 inches	Wingspan 9.75 inches
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GOLDEN-CROWNED SPARROW

When miners worked along the Alaskan gold trails, this Pacific Coast sparrow was known as “Weary Willie” because of its song, which sounded to them like *I’m so weary*. The yellow patch on the dark-bordered crown is present all year. In the winter, it often flocks with its close cousin, the White-crowned Sparrow.

Winter adults have browner faces, are paler and more washed-out overall, and show varying amounts of black on the crown. The juvenile has a yellow wash on its streaked crown, dark brown-streaked underparts, and is similar to the winter adult but has fainter yellow streaking on the forecrown.

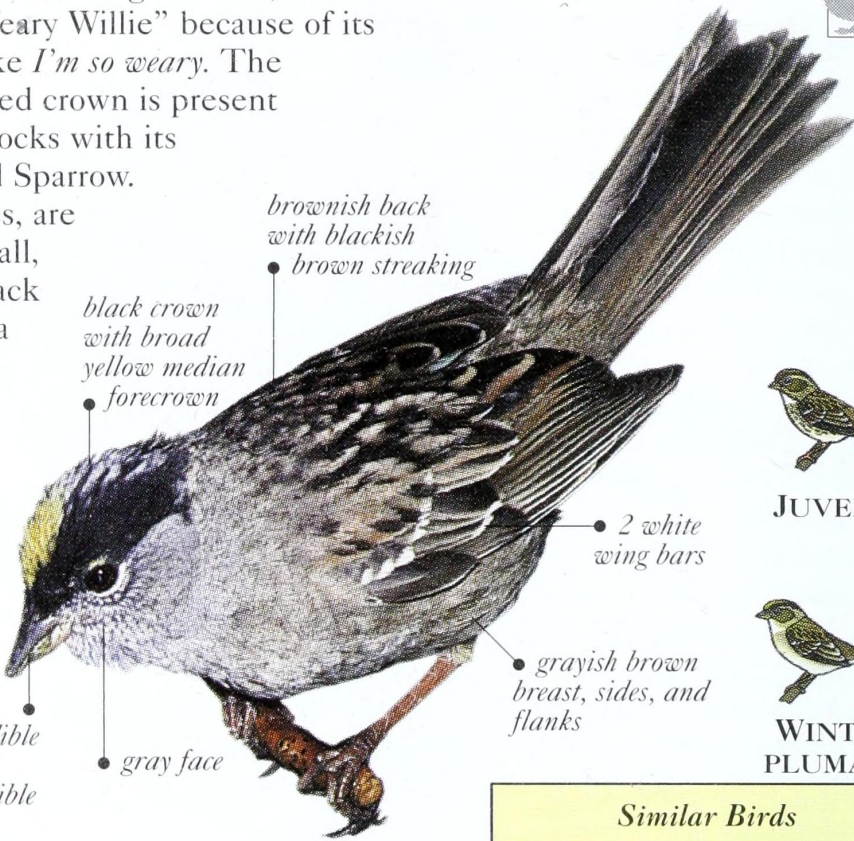
• **SONG** A plaintive whistled descending *oh-dear-me* or *I’m so weary*. Has a call of *tseep* and a loud metallic *chik*. Sings continuously in summer.

• **BEHAVIOR** Solitary or in pairs. In small family groups after nesting season. Forms winter flocks with other species, especially White-crowned Sparrows. Relatively tame and curious, it will come to pishing and squeaking by birders. Forages for food on ground and in low foliage. Eats seeds, insects, flowers, buds, small seedlings, and some fruits and berries. Flocks show site fidelity to wintering territory.

- **BREEDING** Monogamous. Solitary.
- **NESTING** Breeding biology poorly known. Estimated incubation 11–14 days by female. Young altricial; brooded by female; stay in nest estimated 7–12 days, fed by both sexes. 1 brood per year.
- **POPULATION** Fairly common in montane thickets, boreal

bogs, dwarf conifers, and brushy canyons. Winters in brushy thickets and woodland tangles. Casual in the East in winter.

• **FEEDERS** Will attend feeders for seeds.



JUVENILE



WINTER PLUMAGE

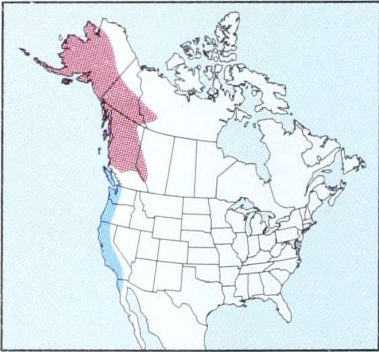
Similar Birds



WHITE-CROWNED SPARROW
Juvenile • pink to orange-bill; brown- and tan-striped head; tan back with rufous-brown streaking; tan rump; grayish underparts; buff-washed supercilium.



HOUSE SPARROW ♀
Shorter tail; lighter sandy brown overall; single white upper wing bar; black streaking on back; buffy eyebrow; no yellow crown patch.



Flight Pattern

Short flights with rapid wing beats alternating with brief periods of wings pulled to sides; repeated.

Nest Identification

Shape Location

Sticks, rootlets, moss, grass, leaves, and bark • lined with feathers, grass, and mammal hair • on ground, hidden in foliage and vines, sometimes on branch of small tree or bush • 0–3 feet above ground • built by female • 3–5 creamy or pale bluish white eggs, with brown splotches; subelliptical to long subelliptical, 0.9 x 0.7 inches.

Plumage Sexes similar	Habitat	Migration Migratory	Weight 1.1 ounces
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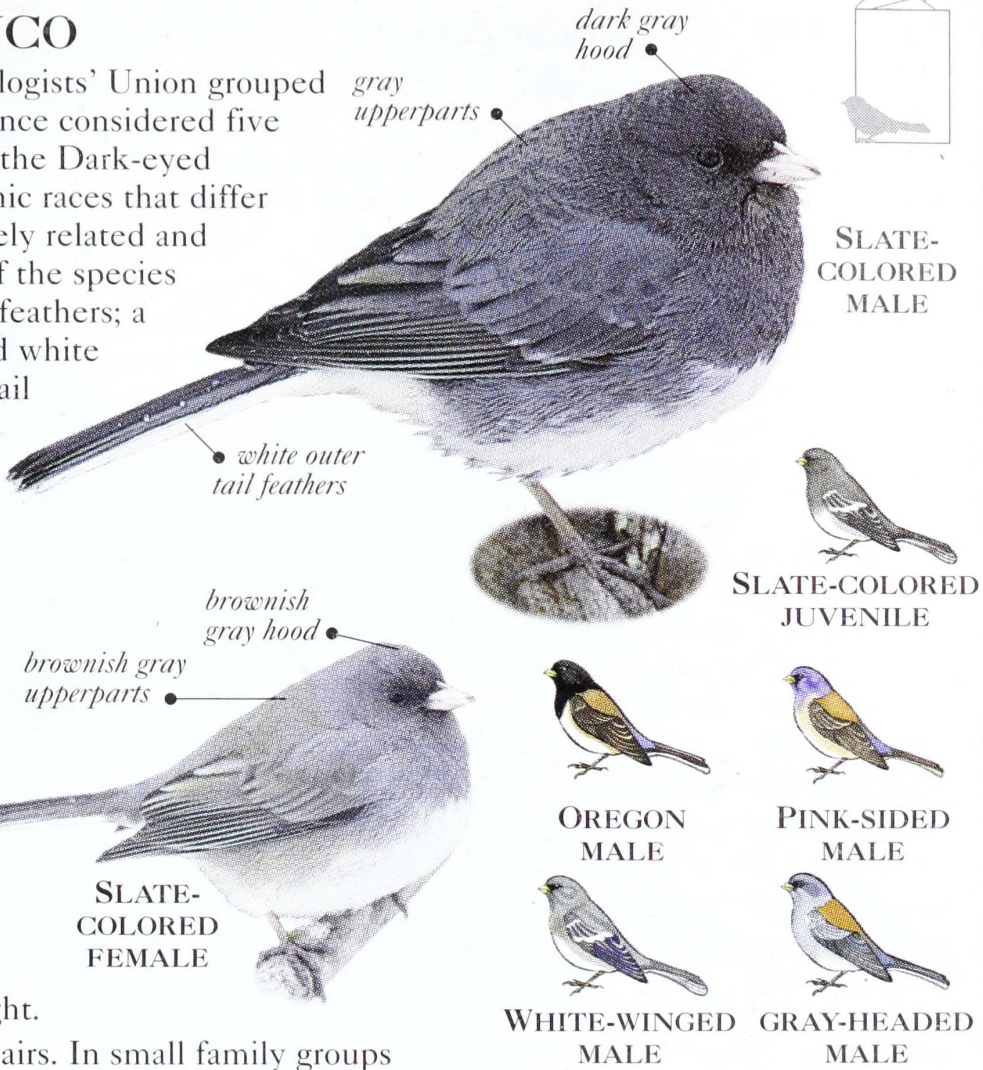
DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species Junco hyemalis	Length 5.75–6.5 inches	Wingspan 9.25–10 inches
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DARK-EYED JUNCO

In 1973 the American Ornithologists' Union grouped under one heading what was once considered five different junco species. Thus, the Dark-eyed Junco is composed of geographic races that differ in color and range but are closely related and have similar habits. All races of the species complex have white outer tail feathers; a black, gray, or brown hood; and white lower breast, belly, and undertail coverts. All have similar songs; all but one have a pink bill. Females tend to be paler and sometimes browner on the back. Juveniles have streaked upperparts and underparts.

- **SONG** Melodic trill, varied in pitch and tempo and from dry chip notes to tinkling bell-like sounds, similar to Chipping Sparrow. Call is abrasive dit produced with sucking smack. Twitters in flight.
- **BEHAVIOR** Solitary or in pairs. In small family groups after breeding season. In spring and fall may join mixed-species foraging flocks; forms flocks in winter. Forages by gleaning from vegetation and scratching on ground. Hops. Eats seeds, grains, berries, insects, caterpillars, and some fruits; occasionally hawks flying insects. The larger males often winter farther north or at higher elevations than juveniles and females.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 11–13 days by female. Altricial young brooded by female; leave nest at 9–13 days, fed by both sexes. 1–3 broods per year.
- **POPULATION** Common to fairly common in coniferous and



Similar Birds

 **YELLOW-EYED JUNCO**
Yellow eyes; black lores; rufous-trimmed greater coverts and tertials; gray head and nape; gray throat and underparts paler than head; white belly
• limited southwest range.

Flight Pattern

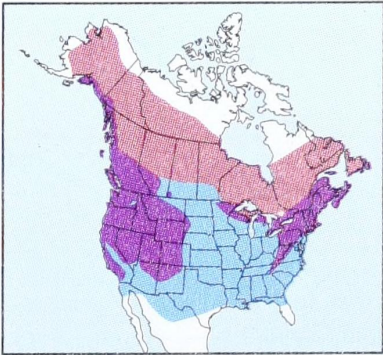


Short flights with white outer tail feathers flashing conspicuously. Alternates several rapid wing beats with brief periods of wings pulled to sides.

Nest Identification

Shape  Location 

- mixed conifer-deciduous forests and bogs; winter habitats vary.
- **FEEDERS** Breadcrumbs, nuts, and seeds.
 - **CONSERVATION** Uncommon cowbird host. Vulnerable to habitat loss due to logging operations.



Grass, weeds, and leaves, with lining of fine grass, hair, and feathers • on ground, sometimes in cavity, sheltered by bush, tree roots, log, occasionally in shrub or tree, 0–20 feet above ground • male gathers materials and female builds
• 3–6 whitish to bluish white eggs, with markings of brown and gray, sometimes concentrated at larger end; oval to short or long oval, 0.8 x 0.56 inches.

Plumage Sexes differ	Habitat 	Migration Northern birds migrate	Weight 0.7 ounce
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DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Calcarius mccownii</i>	Length 6 inches	Wingspan 10 inches
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McCOWN'S LONGSPUR

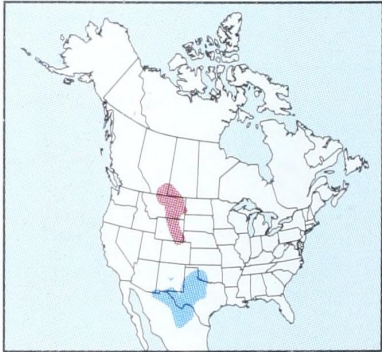
During years of heavy rainfall, this inhabitant of arid short-grass plains will desert its nesting grounds. A monogamous species, males and females are often together, walking side by side. Winter males are similar to breeding females but show deeper chestnut in the median coverts and more black in the breast band. Winter females are buffy with broad buffy eyebrows. Juveniles are paler with a scaly-backed look and streaked heads and underparts. All plumages show a white tail with a black inverted T-shaped pattern.

- **SONG** High-spirited warbling and twittering on breeding grounds. Call sounds like dry rattle or double-noted *churrip-churrip*.
- **BEHAVIOR** In pairs on breeding grounds. Forms large flocks in winter. Forages on ground and makes daily visits to water, including irrigation reservoirs, with other species. Eats weed seeds, variety of insects, and caterpillars. Frequents drier prairies and stubble fields than other longspurs.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 12 days by female. Altricial young brooded by both sexes; stay in nest 10–12 days, fed by both sexes; remain with parents 3 more weeks. 2 broods per year.
- **POPULATION** Fairly common locally. Stable, increase possible on dry short-grass prairies. Ranges have shrunk since 1800s.



Similar Birds

	CHESTNUT-COLLARED LONGSPUR
	White tail with black triangle • breeding male has black belly and chestnut collar • winter birds buffy overall; male with black mottling on breast and white spot on shoulder.



Flight Pattern

Series of rapid wing beats alternating with brief periods of wings pulled to sides; repeated.

Nest Identification

Shape Location

Casual to California coast and southern Oregon. Accidental to East Coast. Rare in interior California and Nevada.

- **CONSERVATION** Uncommon cowbird host. Vulnerable to habitat loss.

Grass lined with occasional weeds, roots, and lichen • in scrape on ground • scratched out by both and built by female • 2–4 white to pale olive eggs, with brown and lavender markings; oval, elliptical, or pyriform; 0.8 x 0.6 inches.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.8 ounce
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DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Calcarius lapponicus</i>	Length 6–7 inches	Wingspan 10.5–11.75 inches
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LAPLAND LONGSPUR

In winter this bird is commonly in the company of Horned Larks, Snow Buntings, and other longspurs on barren snow-swept fields throughout the north and central US, sometimes in large flocks. Resembling a House Sparrow, it is seen often. In all plumages the outer two tail feathers are partly white and partly black. Females are duller in color with rufous greater wing coverts and edging on the tertials, and a bold dark triangle outlines buff ear patches. Juveniles are similar to females but with heavy streaking on the head, back, and underparts.

• **SONG** Liquid warbling Bobolink-like song given in flight. Call is melodious *tee-lee-oo* or *tee-dle* or dry rattling *drit-ri-it*.

• **BEHAVIOR** In pairs or small family groups in summer. Forages on ground for insects and spiders; also eats seeds from grass and sedges; mostly weed seeds in winter. Migrates in flocks in late fall and early spring. Flocks number in the thousands on US wintering grounds. Courting tundra male may sing while chasing female on ground; gives skylarking flight song, rising from ground in front of female, singing above her, and gliding back down with tail and wings spread.

• **BREEDING** Monogamous. Solitary.

• **NESTING** Incubation 10–14 days by female. Young altricial; brooded by female; stay in nest 8–10 days, fed by both sexes. Fledglings are divided equally between the

sexes; each tends its half of the brood. 1 brood per year.

• **POPULATION** Common to abundant on arctic tundra in summer; prairies, grassy fields, stubble fields, and dune areas along shorelines. Widespread.



MALE



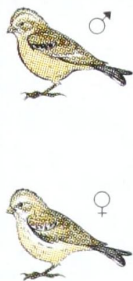
FEMALE



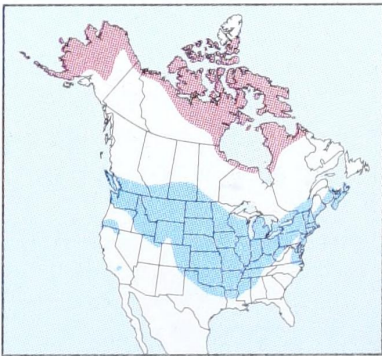
WINTER MALE

WINTER FEMALE

Similar Birds



SMITH'S LONGSPUR
Winter • rich buff nape and underparts; thin dusky streaking on underparts; white shoulder patch, often hidden; 2 white outer tail feathers tipped black on distal third of outer web; small thin bill; buffy supercilium.



Flight Pattern

Rapid wing beats alternating with brief periods of wings pulled to sides.

Nest Identification

Shape  Location 

Fine grass and feathers • lined with grass and moss • in scrape or shallow depression • built by female • 4–7 greenish white to pale gray-green eggs, with brown and black markings; elliptical to oval, 0.8 x 0.6 inches.

Plumage Sexes differ	Habitat 	Migration Migratory	Weight 1.0 ounce
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DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Calcarius pictus</i>	Length 5.75–6.5 inches	Wingspan 10–11 inches
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SMITH'S LONGSPUR

This bird is most often observed during winter months, foraging in pastures and other open areas, including airports, in the Midwest and farther south. Winter flocks often do not closely associate with other foraging longspurs, pipits, or Horned Larks. Smith's Longspur is not wary and allows close approach, but if pushed to flight the birds fly up in a zigzag, giving clicking call notes. The white outer tail feathers bordering the black tail are conspicuous in flight.

• **SONG** Generally heard in spring migration and around breeding grounds. Series of rapid sweet melodious warbles ending in *wee-chew!*, like the ending of a Chestnut-sided Warbler's song. Call sounds like a dry tickling rattle.

• **BEHAVIOR** In pairs on breeding grounds in arctic tundra. In small flocks, pairs, or as individuals on wintering grounds. Somewhat secretive but tame and easily approached. On tundra, eats seeds, insects, and spiders. Feeds mostly on seeds in winter. Seldom seen by biologists or birders due to high arctic breeding range and inconspicuous flock size; so its biology is poorly known.

• **BREEDING** Monogamous. Solitary.

• **NESTING** Incubation 11–13 days by female. Young altricial; brooded by female; leave nest at 7–9 days, with flight 14 days later, fed by both sexes. 1 brood per year.

Flight Pattern

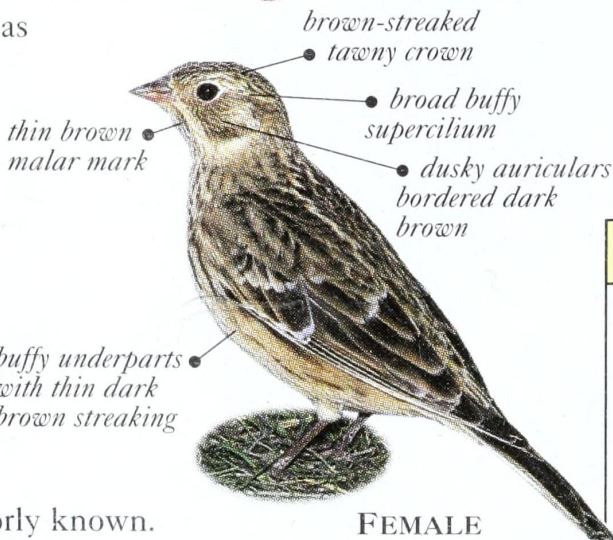


Swift erratic zigzag flight when flushed, then undulating flight with series of rapid wing beats alternating with brief periods of wings pulled to sides.

Nest Identification

Shape  Location 

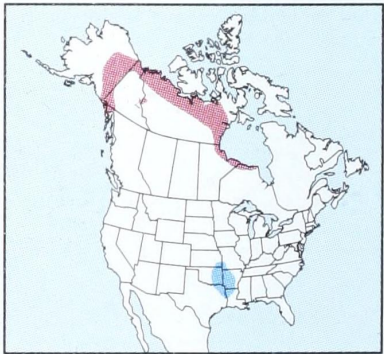
Lichen, animal hair, and feathers • lined with grass and sedge • on ground in shallow depression • built by female • 4–6 pale tan to pale green eggs, with lavender and dark brown markings, or grayish eggs, marked with dark brown and lavender; subelliptical to short subelliptical, 0.8 x 0.6 inches.



Similar Birds

 ♂ LAPLAND LONGSPUR Winter plumage • white underparts; black legs and feet; thick pinkish bill with black tip; rufous greater coverts; outer 2 tail feathers black-and-white • winter male has scalloped blackish bib; streaked black crown.

 ♀



Plumage Sexes differ	Habitat 	Migration Migratory	Weight 1.0 ounce
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DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Calcarius ornatus</i>	Length 5.75–6.5 inches	Wingspan 10–10.75 inches
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CHESTNUT-COLLARED LONGSPUR

All the longspurs are named for the long claw on their hind toe. The male is conspicuous as it rises from the ground, circles and sings above its territory, then glides down on rapidly beating wings, hanging as if to land with wings extended above its back. Males may repeat this several times before landing. In flight the white tail with its black terminal triangle is distinctive.

• **SONG** Soft sweet tumbling warble, similar to song of Western Meadowlark, given only on breeding grounds. Call is nasal *kit-tal, kit-tal*.

• **BEHAVIOR** In pairs or small family groups in summer. Flocks can number more than 100 birds in winter, often including pipits and Horned Larks. Eats weed seeds and insects. Males may attack other birds and ground squirrels that approach the nest. Female has unique distraction display when intruders close to nest, fluttering 2–3 feet into air in aerial “jumps.”

• **BREEDING** Monogamous. Solitary.
• **NESTING** Incubation 10–13 days by female. Young altricial; brooded by female; stay in nest 10 days, first flight at 9–14 days, fed by both sexes. 2 broods per year.

• **POPULATION** Fairly common in moist upland prairies; winters in grassy and stubble fields. In migration, casual east and west of range.

• **CONSERVATION** Uncommon host to cowbird parasitism. Vulnerable to habitat loss due to agriculture and development in habitat.



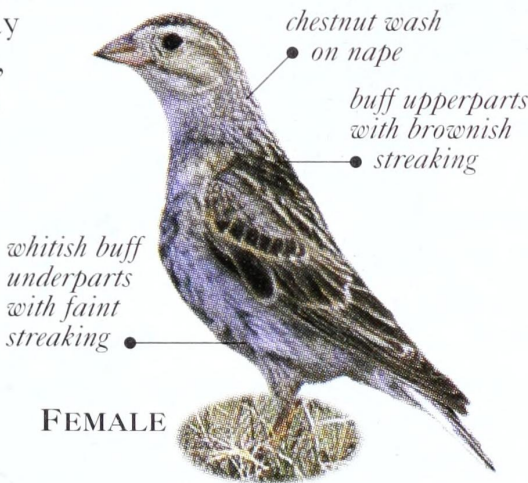
MALE



WINTER MALE



WINTER FEMALE



FEMALE

Similar Birds

♂	MCCOWN'S LONGSPUR
	Gray hindneck; white face with black malar mark; black crescent on chest; white underparts; chestnut wing bar; white tail with inverted black T; larger heavy pink bill; longer primary projection • females and winter-plumaged birds have tail pattern of breeding male; white underparts without streaking; buffy wash on sides and flanks
♀	
♂	
♀	
	• winter male has mottled blackish chest.

Flight Pattern

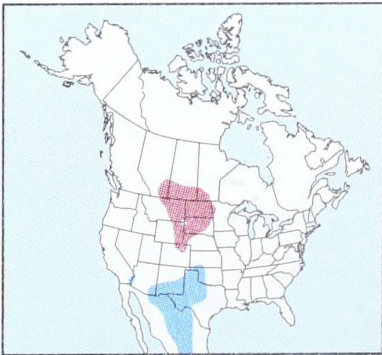


Swift flight on rapidly beating wings alternating with brief periods of wings pulled to sides.

Nest Identification

Shape Location

Grass • lined with finer grass and sometimes with feathers and hair • in hollow on ground, usually hidden in grasses • built by female • 4–5 whitish eggs, marked with brown, black, and purple, occasionally wreathed; oval, 0.8 x 0.6 inches.



Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.7 ounce
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DATE _____ TIME _____ LOCATION _____

Family EMBERIZIDAE	Species <i>Plectrophenax nivalis</i>	Length 6.25–7.25 inches	Wingspan 12–13 inches
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SNOW BUNTING

This bird can survive temperatures as low as fifty-eight degrees below zero and often tunnels in the snow in the shelter of grass tussocks or shrubs to keep warm. When seen in flight from below, it often appears completely white, like a large snowflake. Males have a white rump. Nonbreeding females have a cinnamon rump and shoulders.

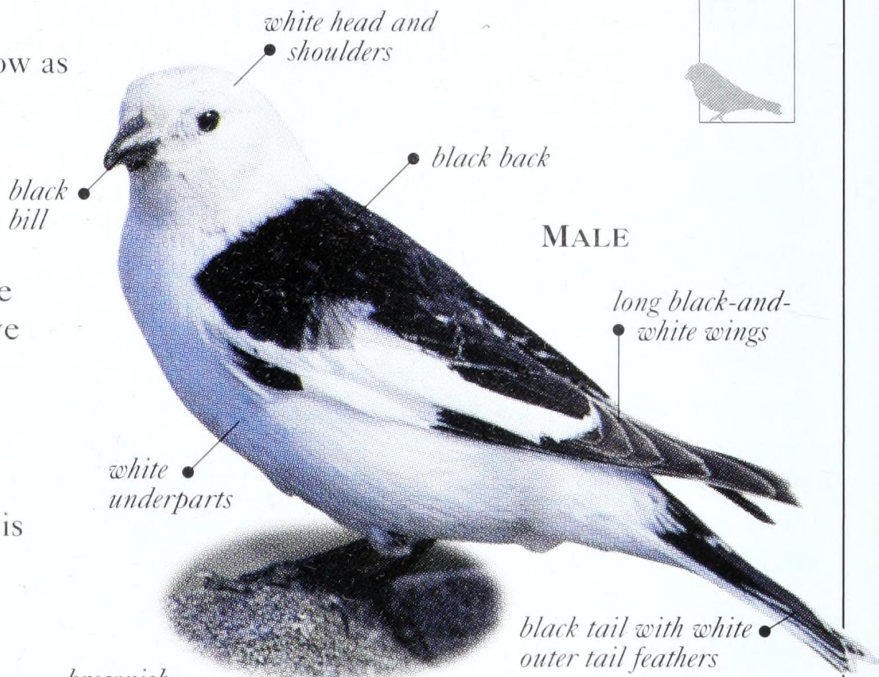
• **SONG** Series of bold repetitive high trilling musical notes. Sings only on breeding grounds, usually in fluttering display flight and from the ground. Call is whistling *tuu*.

• **BEHAVIOR** In pairs on breeding grounds. Fledged young quickly form foraging flocks when independent of parental care. Gregarious after breeding, often roosting, traveling, and feeding in large flocks. Frequently bathes in snow. Forages on ground for seeds, insects, and caterpillars. Coastal birds also feed on small crustaceans and mollusks. Joins other open-landscape bird species in winter, including Lapland Longspurs and Horned Larks.

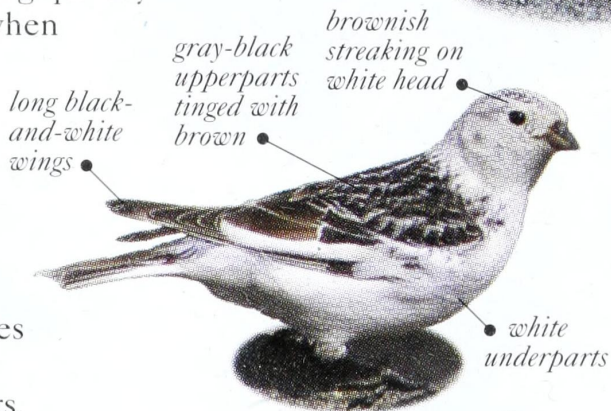
- **BREEDING** Monogamous. Pairs.
- **NESTING** Incubation 10–16 days by female. Young altricial; brooded by female; stay in nest 10–17 days, fed by both sexes. 1 brood per year; birds in the southern limits of range occasionally have 2 broods.
- **POPULATION** Fairly common in summer on arctic

rocky shores, dry tundra, cliffs, and talus slopes; winters in stubble fields, grassy fields, and on coastal beaches and around sand dunes.

• **BIRDHOUSES** Will build nest in birdhouses.



MALE



FEMALE



JUVENILE

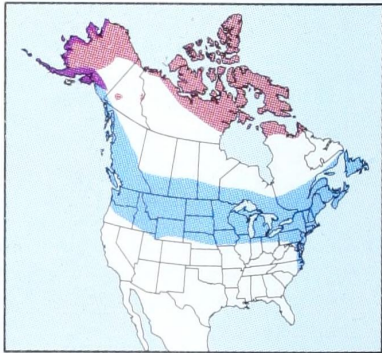


WINTER PLUMAGE

Similar Birds



MCKAY'S BUNTING
Alaska range
• breeding male completely white except for fine black streaking on forecrown; black tips to central tail feathers; black distal half of primaries and tertials; heavy black bill
• breeding female is similar but shows black chevrons on shoulders; black spot on nape; more black on central tail feathers
• winter plumage similar to breeding plumage but with cinnamon crown, washes of cinnamon on upperparts, and yellow-orange bill.



Flight Pattern



Swift flight on rapidly beating wings alternating with brief periods of wings pulled to sides.

Nest Identification



Grass and moss with lining of grasses, mammal hair, and feathers • under grassy tussock or in crevice of rock or cliff; in nest boxes, buildings, empty oil barrels, and other artificial structures • built by female • 4–7 whitish to light blue-green eggs with brown and black markings; subelliptical, 0.9 x 0.7 inches.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 1.5 ounces
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Family CARDINALIDAE	Species <i>Rhodothraupis celaeno</i>	Length 8.5 inches	Wingspan 13 inches
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CRIMSON-COLLARED GROSBEAK

This bird is easy to identify by the male's bold crimson collar contrasting with its black head and chest, but its shy manner makes it difficult to spot. A native of northeastern Mexico, it sometimes winters in the lower Rio Grande Valley of southern Texas. Juveniles are similar to adult females but the sooty black is primarily restricted to the face and throat. By their second spring juvenile males show olive upperparts and a black face and chest similar to that of the adult female, but the underparts have reddish pink and black patches and the tail and tertials show some black.

• **SONG** Rich slightly burry warble with upslurred ending, *twit-twert-teer-twerty-dur*, similar to that of the Northern Cardinal. Call is thin shrill up-and-down *see-i-ya*.

• **BEHAVIOR** Solitary or in pairs. May join mixed foraging flocks. Shy; retiring. Forages high to low in second growth and brushy woodland. Skulks on ground or in low vegetation. Gleans from ground, twigs, flowers, and foliage. Eats seeds, berries, fruits, insects, and larvae. May raise feathers on back of crown.

• **BREEDING** Monogamous. Solitary.

• **NESTING** Breeding biology poorly known. Estimated incubation 11–13 days by female. Young altricial; brooded by female; stay in nest estimated 9–12 days, fed by both sexes. 1–2 broods per year.

• **POPULATION** Uncommon in native range. Casual in the lower Rio Grande Valley area in the southeastern part of Texas.

• **CONSERVATION** Vulnerable to habitat loss due to agriculture and development. Extent of cowbird parasitism remains undetermined.

Flight Pattern

Short flights within vegetation and below canopy; rapid wing beats alternating with brief periods of wings pulled to sides.

Nest Identification

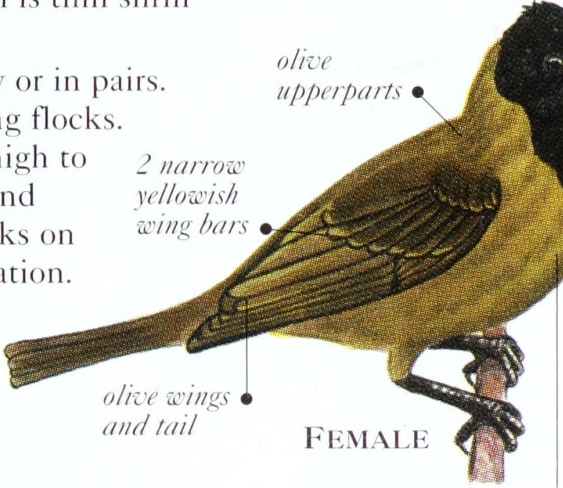
Shape

Location

Bulky • grasses and twigs, with lining of finer materials • in bush, tangled vines, or sometimes low in tree • built by female • 2–3 light grayish blue eggs, with flecks of brown; oval, 0.85 x 0.66 inches.



MALE



FEMALE

Similar Birds

AUDUBON'S ORIOLE ♂
Similar to female Crimson-collared Grosbeak • larger; long thin dark bill; black upper mandible and blue-gray lower mandible; black head and chest; yellow-olive upperparts; rich lemon-yellow underparts; black wings with thin white wing bar; long black tail; blue-gray legs and feet.



Plumage Sexes differ	Habitat	Migration Nonmigratory	Weight Undetermined
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DATE _____ TIME _____ LOCATION _____

Family	CARDINALIDAE	Species	<i>Cardinalis cardinalis</i>	Length	7.5–9.25 inches	Wingspan	10–12 inches
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NORTHERN CARDINAL

The official bird of seven US states sings a variety of cheerful melodies year-round. The male fights other birds to defend his territory and sometimes tries to attack his own reflection in windows, automobile mirrors, chrome, and hubcaps. Having adapted to suburban areas, these birds visit backyard feeders regularly and sometimes take food from the hand. Juveniles resemble the adult female but have a blackish instead of reddish bill.

• **SONG** Variable. Variety of gurgling and clear whistled melodies. More than 25 different songs. Best-known phrases include *whoit cheer, whoit cheer, cheer-cheer-cheer; cheer, whoit-whoit-whoit-whoit; wheat-wheat-wheat-wheat; and bir-dy, bir-dy, bir-dy, bir-dy.*

Female in courtship duets with male after territory is established and prior to nesting. Call is abrasive metallic *chip* or *pik*.

• **BEHAVIOR** Solitary or in pairs during breeding season. Gregarious at other times, forming flocks in winter or joining mixed-species foraging flocks. Forages in trees, bushes, and on ground. Eats insects, seeds, grains, fruits, and snails. Drinks sap from holes drilled by sapsuckers. Hops rather than walks on ground.

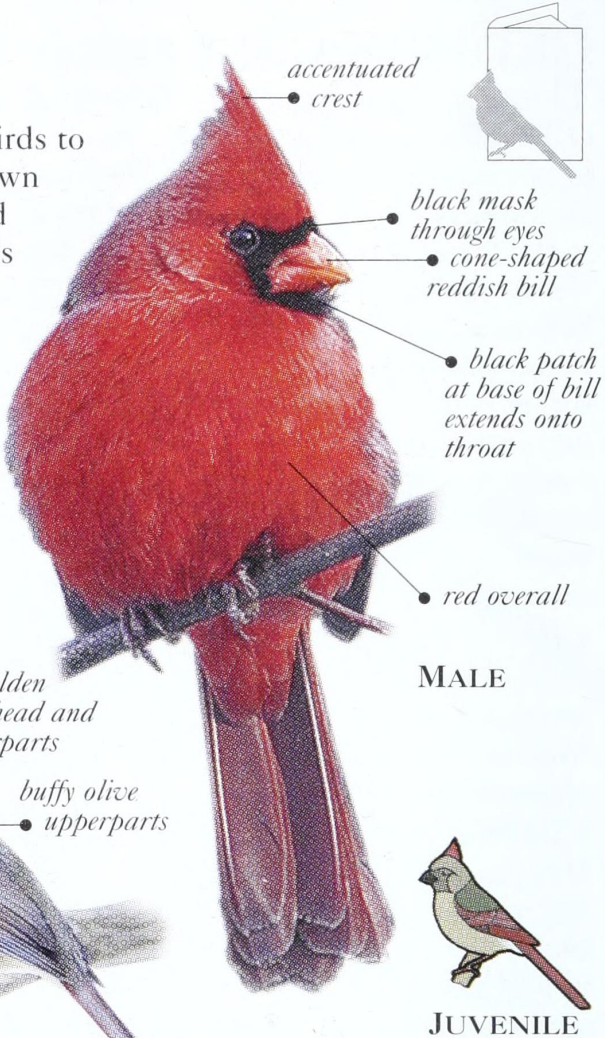
• **BREEDING** Monogamous. Solitary. Male feeds female during courtship and while incubating.

• **NESTING** Incubation 12–13 days, mostly by female. Young altricial; brooded by female; stay in nest 9–11 days, fed by both sexes. Male may continue to tend fledglings while female begins incubating new set of eggs. 2–4 broods per year.

• **POPULATION** Abundant and widespread in woodland edges, undergrowth, thickets, and residential areas. Range has expanded north in the last century, partly due to increase of feeding stations. Casual in West.

• **FEEDERS** Cracked corn, sunflower seeds, birdseed. Will bathe in birdbaths.

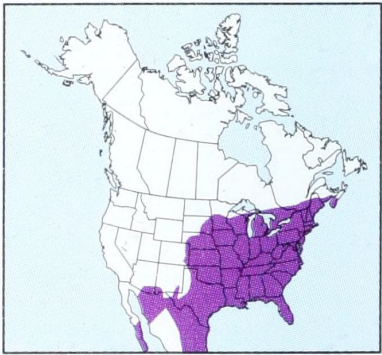
• **CONSERVATION** Common cowbird host, especially in the central portion of its range.



Similar Birds



PYRRHULOXIA ♀
 Resembles female and juvenile Northern Cardinal; stubby sharply curved yellowish bill; red eye ring; red tip to long gray crest; grayish upperparts; red edging to primaries; reddish wash on throat and underparts.



Flight Pattern



Short flight just above vegetation or below canopy; rapidly beating wings alternate with brief periods of wings pulled to sides.

Nest Identification

Shape  Location 

Twigs, weeds, grass, bark strips, and leaves • lined with hair and grass • in fork of low tree or bush or set in tangled twigs or vines • usually less than 5 feet above ground (but up to 15 feet) • built by female • 3–4 pale greenish, bluish, or grayish eggs with dots and flecks of gray, purple, and brown; oval, 1.0 x 0.7 inches.

Plumage	Sexes differ	Habitat		Migration	Nonmigratory	Weight	1.6 ounces
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DATE _____ TIME _____ LOCATION _____

Family CARDINALIDAE	Species <i>Cardinalis sinuatus</i>	Length 8.75 inches	Wingspan 11.25 inches
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PYRRHULOXIA

This long-crested bird of southwestern North America and Mexico looks like a gray cardinal with a parrotlike bill. Both the male and female aggressively defend their two- to three-acre territory until it is established, whereupon it becomes the duty of the male to maintain it. The female is similar to the male but has a buffy gray breast, a red tip to her gray crest, yellow washes on her throat and the midline of her breast and belly, and red edging to her primaries. In winter the yellow bill of both sexes turns grayish yellow. In flight the underwing coverts flash red.

• **SONG** Varied series of rich loud whistles, *chewee, chewee, chewee; wheet-wheet-wheet*, very similar to Northern Cardinal. Call is sharp metallic *plik* or *chink*.

• **BEHAVIOR** Solitary or in pairs during breeding season. Gregarious at other times, forming flocks in winter. Often joins mixed-species foraging flocks in winter. Forages for food in trees, bushes, and on ground but spends much time on ground, where it hops instead of walks. Eats flower spikes, various fruits, berries, seeds, insects, and larvae. Male sings from exposed perch.

• **BREEDING** Monogamous. Solitary.
• **NESTING** Incubation 14 days by female. Young altricial; brooded by female; leave nest at 10–11 days, fed by both sexes. 1 brood per year.

- **POPULATION** Fairly common in thorn scrub, arid brushlands, mesquite thickets, and ranchlands.
- **FEEDERS** Will come to feeders and birdbaths.
- **CONSERVATION** Uncommon cowbird host.

Flight Pattern

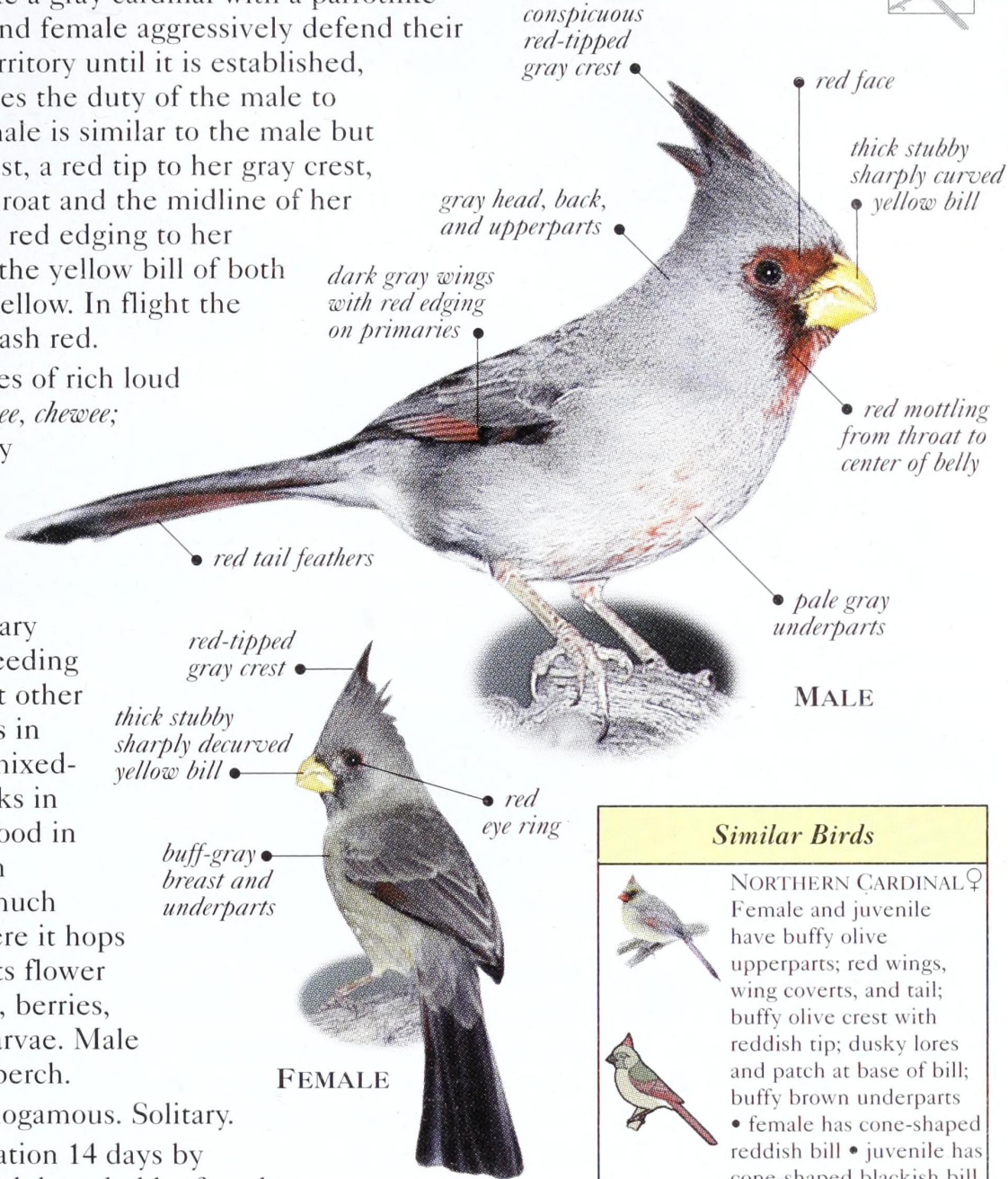


Short flights low over vegetation, with rapid wing beats alternating with brief periods of wings pulled to sides.

Nest Identification

Shape 	Location 
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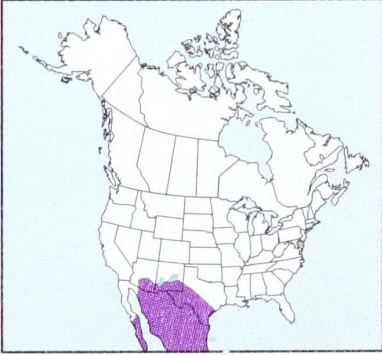
Thorny twigs, weeds, grass, and bark pieces, lined with rootlets and fine materials • in shrub or thicket • 5–15 feet above ground • built by female • 3–4 grayish white or greenish white eggs with brown dots and flecks; oval, 1.0 x 0.7 inches.



Similar Birds



NORTHERN CARDINAL ♀
Female and juvenile have buffy olive upperparts; red wings, wing coverts, and tail; buffy olive crest with reddish tip; dusky lores and patch at base of bill; buffy brown underparts
• female has cone-shaped reddish bill • juvenile has cone-shaped blackish bill.



Plumage Sexes differ	Habitat     	Migration Nonmigratory	Weight 1.3 ounces
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DATE _____ TIME _____ LOCATION _____

Family CARDINALIDAE	Species <i>Pheucticus ludovicianus</i>	Length 7–8.5 inches	Wingspan 12–13 inches
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ROSE-BREASTED GROSBEAK

This bird's clear notes are delivered in robinlike phrases, but the song is sweet. Males sing constantly, even while sparring to win a female. In flight the male shows rosy red wing linings and white rump; females flash yellow wing linings. First fall males have less streaking on underparts than females, buffy wash across the breast, and rose-red wing linings. First spring males are similar to adult males but with brown edges to the black plumage.

• **SONG** Rich warbled melodious phrases interspersed with call notes. Squeaky abrasive call, *eeek*.

• **BEHAVIOR** Solitary or in pairs in breeding season. Flocks in migration and winter. Forages in trees, shrubs, and on ground. Eats seeds, insects, caterpillars, tree flowers, fruits, and berries. Hover gleanes high in trees at branch tips; females more often than males.

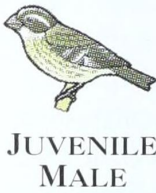
• **BREEDING** Monogamous. Solitary. Male and female rub bills to display affection during courtship.

• **NESTING** Incubation 13–14 days by both sexes. Altricial young brooded by both sexes, more by female; stay in nest 9–12 days, fed by both sexes. Male may tend while female begins second nesting. 1–2 broods per year.

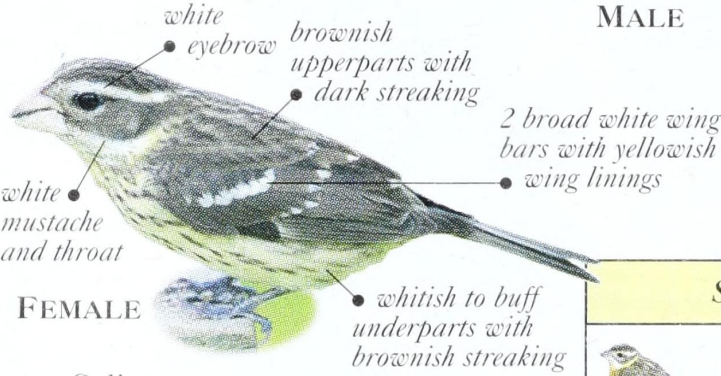
• **POPULATION** Common to fairly common in deciduous forest, woodland, and second growth. Rare migrant in West. Rare to accidental in winter on southern California coast.



MALE



JUVENILE MALE



FEMALE

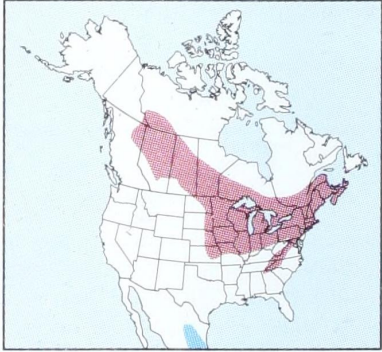


FIRST SPRING MALE

Similar Birds



BLACK-HEADED GROSBEAK ♀
Buff to white supercilium; pale cinnamon chest with fine streaking on sides and flanks; upperparts have buffy mottling and streaking; lemon-yellow underwing coverts.



Flight Pattern

Swift flight on rapidly beating wings with brief periods of wings pulled to sides.

Nest Identification

Shape

Location

Twigs, weeds, and leaves • lined with fine twigs, rootlets, and mammal hair • in vines, low tree, or shrub, 5–15 feet above ground (but up to 50 feet) • built mostly by female, but male helps • 3–5 light greenish or bluish eggs marked with reddish brown; oval, 1.0 x 0.7 inches.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 1.6 ounces
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DATE _____ TIME _____ LOCATION _____

Family CARDINALIDAE	Species <i>Pheucticus melanocephalus</i>	Length 7–8.5 inches	Wingspan 12–13 inches
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BLACK-HEADED GROSBEAK

Easily observed in western woodlands, this tame bird attends feeders and sometimes takes food from the hand. Both sexes aggressively defend their territory from other grosbeaks. Lemon wing linings are conspicuous in flight. First fall males have rich cinnamon-buff underparts, blackish brown cheek patches, white eyebrow and mustache, and white tips to tertials.

• **SONG** Rich back-and-forth series of warbled phrases, robinlike. Similar to Rose-breasted Grosbeak but lower pitched. Female sings less with more variations. Call is high squeaky *plik*.

• **BEHAVIOR** Solitary or in pairs in breeding season. Gregarious in migration and winter; may form flocks. Forages in trees, bushes, and on ground. Eats seeds, insects, caterpillars, berries, and fruits. Some hybridize with Rose-breasted Grosbeak where ranges overlap in Great Plains. Both sexes may sing “whisper” songs while incubating and brooding.

• **BREEDING**

Monogamous. Solitary.

• **NESTING** Incubation 12–14 days by both sexes. Altricial young brooded by both sexes, more by female; stay in nest 11–12 days, fed by both sexes. 1 brood per year.

• **POPULATION** Common to fairly common in open woodlands, especially pine-oak and oak, forest edge, and riparian woodlands. Casual in migration and winter to the Midwest and the East.

• **FEEDERS** Various seeds.

• **CONSERVATION**

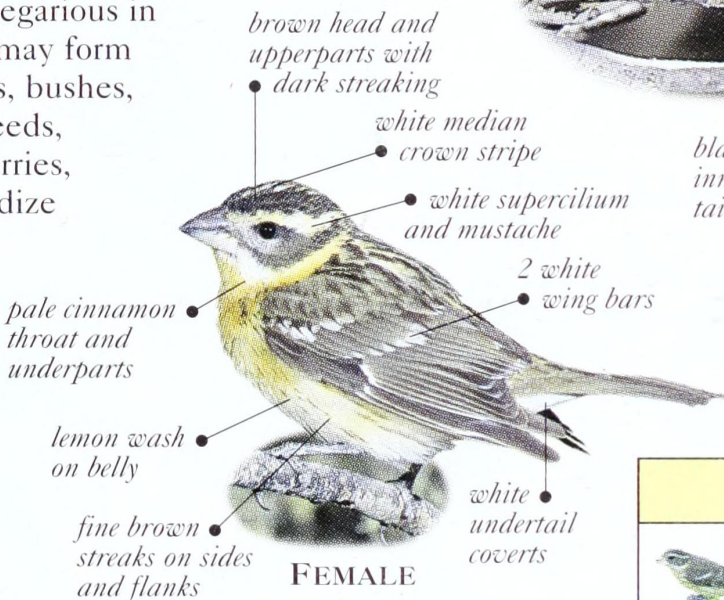
Neotropical migrant.

Uncommon cowbird host.

Vulnerable to habitat loss due to logging and fires.



MALE



FEMALE

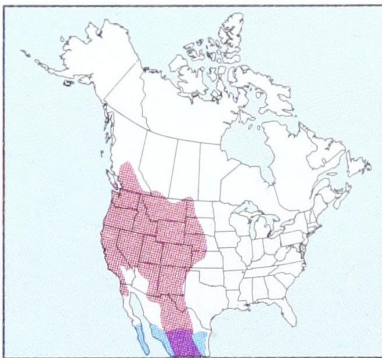


JUVENILE MALE

Similar Birds



ROSE-BREASTED GROSBEAK ♀
Heavier streaked white to buffy underparts; darker upperparts; brown edging to feathers on back; gray to pale creamy pink bill; paler upper mandible.



Flight Pattern



Short flights with rapid wing beats alternating with brief periods of wings pulled to sides.

Nest Identification

Shape

Location

Sticks, weeds, rootlets, and pine needles, lined with finer materials • in dense part of tree or shrub, usually near water, about 4–25 feet above ground • built by female • 3–4 light greenish or bluish eggs dotted with reddish brown; oval, 1.0 x 0.7 inches.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 1.5 ounces
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DATE _____ TIME _____ LOCATION _____

Family CARDINALIDAE	Species <i>Cyanocompsa parellina</i>	Length 5.5 inches	Wingspan 8.5 inches
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BLUE BUNTING

Strays of this tropical bird occasionally find their way to the lower Rio Grande Valley of southern Texas during the winter months. The lack of chestnut wing bars and its smaller size set this bird apart from the Blue Grosbeak; the darker and more contrasting colors combined with a thicker bill with a strongly curved culmen distinguish it from the Indigo Bunting. Except for call notes, these winter visitors usually are silent, making them more difficult to detect in the scrubby thickets and brushy woodlands they frequent. Males have a paler blue forecrown, supercilium, malar mark, shoulder, and rump. Juveniles are similar to adult females.

- **SONG** Varied plaintive trilling of *seeyou, seeyou, seeyee-suee-si-si-see*, with 1–2 introductory notes followed by a trill then fading away. Call is metallic *chink*.
- **BEHAVIOR** Solitary or in pairs. Shy and retiring. Spends time low in the brushy forest understory, dense scrubby thickets, and on ground. Forages for seeds, insects, and insect larvae.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Breeding biology poorly known.

Estimated incubation by female 11–13 days. Altricial young brooded by female; stay in nest estimated 10–12 days, fed by both sexes. 1–2 broods per year.

- **POPULATION** Rare in North America in south Texas along the Mexican border.
- **FEEDERS** Small seeds.
- **CONSERVATION** Extent of cowbird parasitism has not been well documented.

Flight Pattern



Typically, short flight with rapid wing beats alternating with brief periods of wings pulled to sides.

Nest Identification

Shape 

Location  

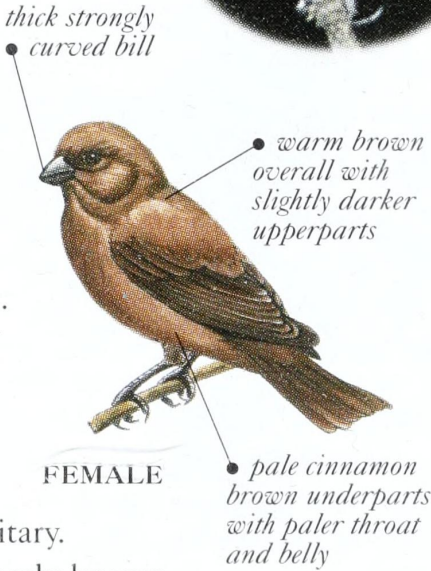
Grasses and rootlets, with lining of finer materials • in bush or low in small tree • built by female • 2 plain pale bluish white eggs; oval to short oval, 0.7 x 0.5 inches.

Plumage Sexes differ	Habitat   	Migration Nonmigratory	Weight 0.5 ounce
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DATE _____ TIME _____ LOCATION _____



MALE



FEMALE

Similar Birds

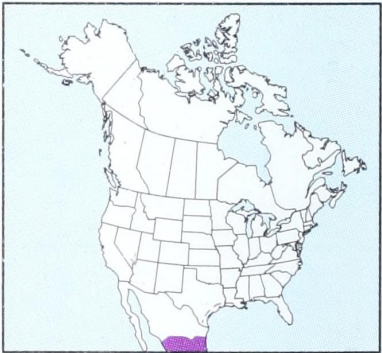


BLUE GROSBKAK ♂
Larger; chestnut wing bars; heavy conical bill.



INDIGO BUNTING
Smaller, less curved bill
• male shows less contrast in colors, being brighter blue overall with dark lores • female and juvenile are brown overall; paler underparts, especially on chin and belly; faint streaking on underparts; 2 indistinct wing bars.





Family CARDINALIDAE	Species <i>Guiraca caerulea</i>	Length 6.25–7.5 inches	Wingspan 10.5–11.5 inches
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BLUE GROSBEAK

Often seen flocking in southern fields in spring, this grosbeak, with its deep blue plumage, may appear black from a distance or on a cloudy day. Not shy, it hops on the ground, wagging or spreading its tail, and sings from a conspicuous perch. In nesting season the male attacks other pairs to defend its territory. Females may be mistaken for female Brown-headed Cowbirds, but the large triangular bill and brown wing bars are distinctive, as is their behavior of raising a slight crest and flicking and spreading their tails. Females have a gray-brown rump that can show a bluish cast.

• **SONG** Series of deep rich slightly scratchy warbles that rise and fall in pitch, resembling the Purple Finch. Call is explosive metallic *pink*.

• **BEHAVIOR** Solitary or in pairs during breeding season. More gregarious in other seasons; forms flocks. Hops on ground to forage; gleans from weeds, bushes, and low in trees.

Eats mostly insects in summer; also fruits, seeds, grains, and land snails. May fly considerable distances across fields from one song perch to the next.

- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 11–12 days by female. Young altricial; brooded by female; leave nest at 9–10 days, fed mostly by female. 2 broods per year.
- **POPULATION** Uncommon to fairly common in overgrown

fields, riparian thickets, brushy rural roadsides, and woodland edges. Range is expanding in central and northeastern US.

- **FEEDERS** Seeds and grains.
- **CONSERVATION** Neotropical migrant. Fairly common cowbird host.

Flight Pattern

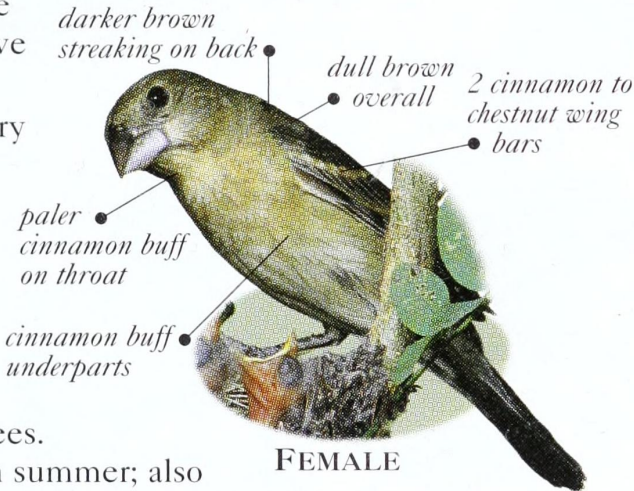
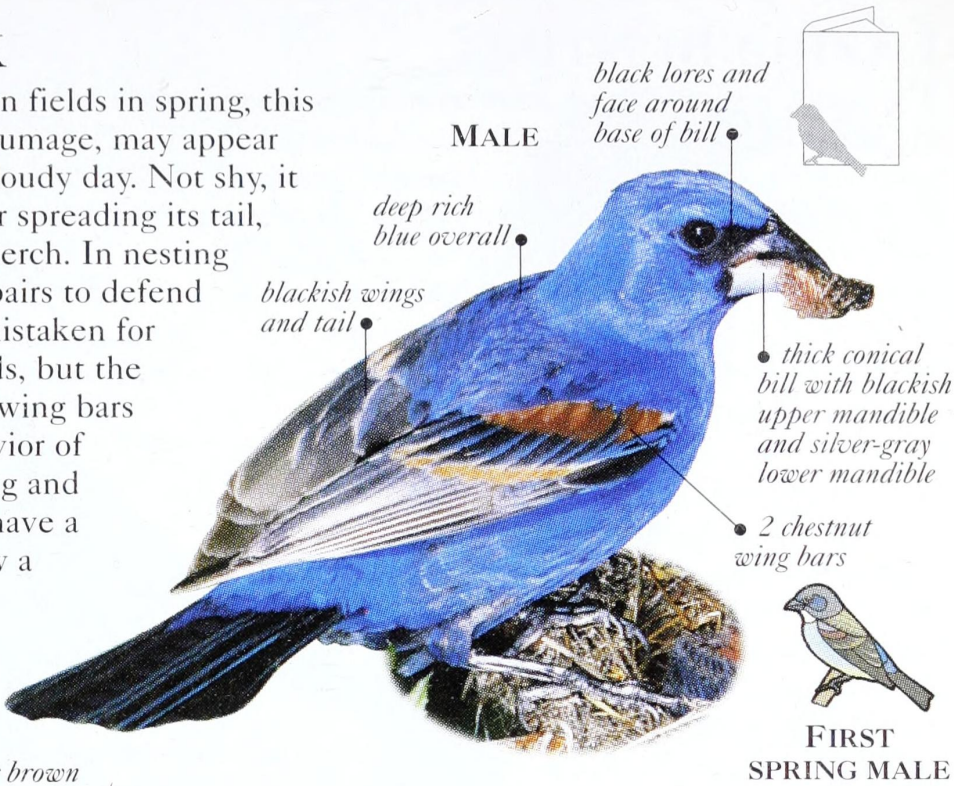


Swift flight with rapid wing beats alternating with brief periods of wings pulled to sides.

Nest Identification

Shape  Location 

Twigs, weeds, rootlets, snakeskin, leaves, bark, bits of paper, and string, with lining of finer materials • low in tree, bush, or weed clump • 3–12 feet above ground • built by female • 3–5 light blue eggs occasionally marked with brown; oval, 0.9 x 0.7 inches.



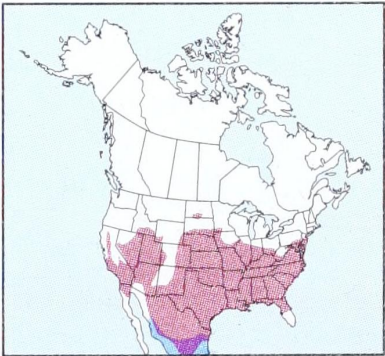
Similar Birds

 **INDIGO BUNTING**
Smaller; bright blue overall; smaller bill; lacks chestnut wing bars • female is smaller with smaller bill; brown overall with faint streaking on breast and narrow brown wing bars.

 **INDIGO BUNTING** (continued)

 **BLUE BUNTING**
Smaller; blue-black overall; smaller bill with rounded culmen; lacks chestnut wing bars • female has brown plumage overall; lacks wing bars • casual in Texas.

 **BLUE BUNTING** (continued)



Plumage Sexes differ	Habitat 	Migration Migratory	Weight 1.0 ounce
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DATE _____ TIME _____ LOCATION _____

Family CARDINALIDAE	Species <i>Passerina amoena</i>	Length 5.25–5.75 inches	Wingspan 8–9 inches
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LAZULI BUNTING

This small turquoise bird is the western counterpart to the Indigo Bunting of eastern North America. Seen in open forests, riparian thickets, chaparral, and arid brushy canyons, the male sings to claim his territory and spreads and flutters his wings to show off his plumage and attract females. The winter plumage of the male shows the blue on its head and upperparts heavily washed with brown.

• **SONG** Various phrases, some paired and somewhat buzzy, *see-see-sweet*, *sweet-zee-see-zee*. Call is “wet” *plik*.

• **BEHAVIOR** Solitary or in pairs during breeding season. Gregarious at other times, in flocks and mixed-species foraging flocks with other buntings and sparrows. Forages on ground and low in trees and bushes. Eats mainly seeds; also insects and caterpillars, especially in summer. At end of breeding season many join flocks and move to higher elevations. Hybrids occur where range overlaps with Indigo Bunting. Aggressively defends territory.

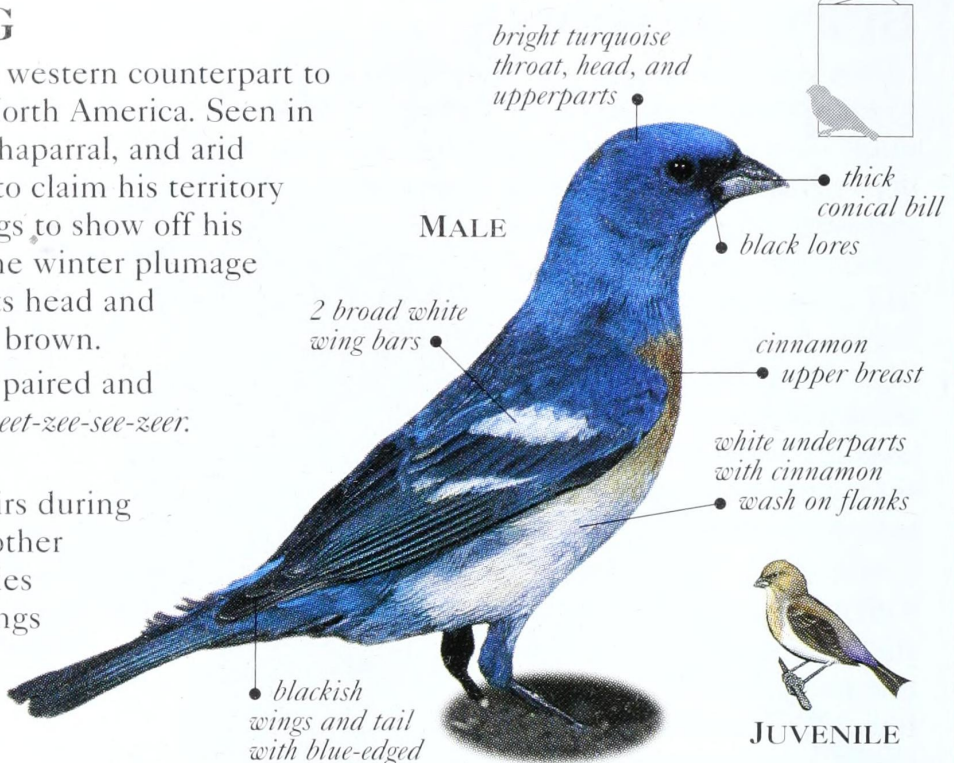
• **BREEDING** Mostly monogamous; some males polygamous.

• **NESTING** Incubation 12 days by female. Young altricial; brooded by female; stay in nest 10–12 days, fed by both sexes, but female does more. 2–3 broods per year.

• **POPULATION** Fairly common. Logging and agricultural change in 20th century promoted range and population expansion. Casual throughout the East.

• **FEEDERS** Comes for small seeds and grains.

• **CONSERVATION** Neotropical migrant. Uncommon host to parasitism by cowbirds. Disappearing due to development.



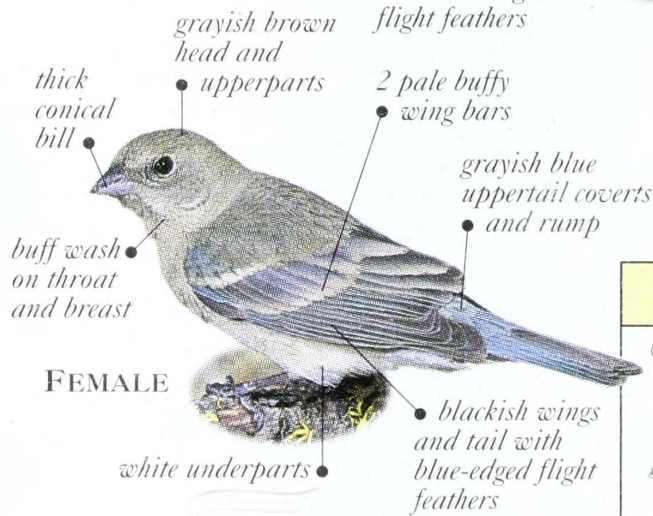
MALE



JUVENILE



FIRST SPRING MALE

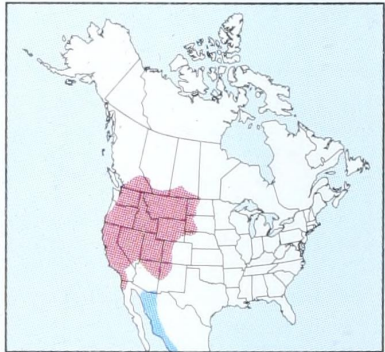


FEMALE

Similar Birds

INDIGO BUNTING
Male bright blue overall
• female lacks pale wing bars; warm brown to pale buffy brown underparts; dusky streaking on chest.

VARIED BUNTING ♀
Stubbier bill; lacks buff wash on flanks; lacks pale wing bars.



Flight Pattern

Typically, short flights on rapidly beating wings alternating with brief periods of wings pulled to sides.

Nest Identification

Shape

Location

Grass, weeds, and leaves, with lining of finer grass and mammal hair • in fork of bush or small tree • 2–4 feet above ground (but up to 10 feet) • built by female • 3–5 plain pale bluish white eggs; short oval to oval, 0.8 x 0.5 inches.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.8 ounce
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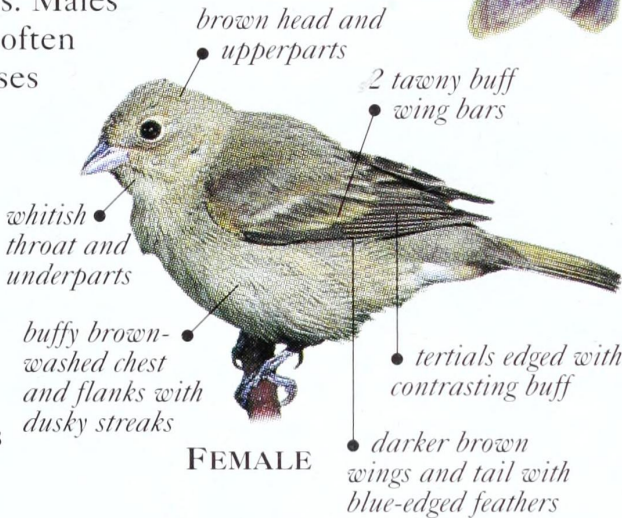
DATE _____ TIME _____ LOCATION _____

Family CARDINALIDAE	Species <i>Passerina cyanea</i>	Length 5.25–5.75 inches	Wingspan 8–9 inches
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INDIGO BUNTING

The male’s distinctive plumage looks blue in sunlight and almost black in shade or backlighting. Populations are expanding with the creation of disturbed habitat after logging, highway and power line construction, and farmland abandonment. Its breeding range now includes much of the Southwest.

- **SONG** Series of varied measured strident phrases, usually paired, *sweet-sweet*, *sweeter-sweeter*, *here-here*, often with an added trilled ending. Call is a “wet” *spit* or *plik*.
- **BEHAVIOR** Solitary or in pairs during breeding season. Gregarious at other times; in flocks in winter, often with other buntings, sparrows, and finches. Forages in trees, shrubs, and on ground. Eats variety of insects and larvae, especially in summer; also dandelion seeds, weed seeds, grass seeds, small grains, and wild berries. Males defensive of territory; often engage in colorful chases with other males.
- **BREEDING** Monogamous. Solitary. Some males polygynous when outnumbered by females.
- **NESTING** Incubation 12–14 days by female. Young altricial; brooded by female; leave nest at 9–12 days, fed mostly by female; some males bring food. 2 broods per year.
- **POPULATION** Fairly common to common. Abundant in some deciduous forest edges, old fields, clearings, and agricultural areas. Expanding.



Similar Birds	
	BLUE GROSBEAK Larger; large triangular bill; tan wing bars.
	VARIED BUNTING ♀ Olive-brown to tawny-brown overall; brown rump; bill with more decurved culmen; narrower tertial edges with less buffy contrast; lacks streaking on underparts; lacks brown wing bars.
	

Flight Pattern

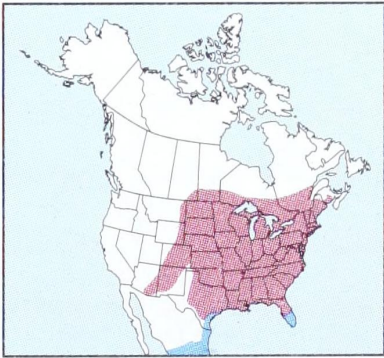


Short flight low over vegetation with rapid wing beats alternating with brief periods of wings pulled to sides.

Nest Identification

Shape  Location 

- **FEEDERS** Comes for small seeds and grains.
- **CONSERVATION** Neotropical migrant. Common host to cowbird parasitism. Some habitat loss due to maturation of cut-over forests.



Weeds, bark, and fine materials, lined with grass and leaves • in weed clump, dense shrub, or low tree • 1–15 feet above ground • built by female • 3–4 pale bluish white to white eggs, sometimes with brown or purple spotting; short oval to short subelliptical, 0.8 x 0.5 inches.

Plumage Sexes differ	Habitat 	Migration Migratory	Weight 0.5 ounce
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DATE _____ TIME _____ LOCATION _____

Family CARDINALIDAE	Species <i>Passerina versicolor</i>	Length 5–5.5 inches	Wingspan 8–8.5 inches
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VARIED BUNTING

If this bird is seen in the open on a sunny day, the exquisite colors in the male's breeding plumage are striking: varied reds, violet-blues, deep purples, and blacks. When seen from a distance or in poor light, however, it appears black overall. In the molt to basic plumage following the breeding season, males show brownish rather than plum-colored plumage, and the red nape is faded and washed with browns, while the forecrown, face, and rump retain some blue. Juveniles resemble females but show narrow buff wing bars and a brighter brown body.

• **SONG** Various high-pitched slightly scratchy thin warbles similar to the song of the Painted Bunting. Call is a "wet" *spik*.

• **BEHAVIOR** Solitary or in pairs during breeding season. Solitary or in small groups at other times. Shy and secretive. Remains hidden in thickets close to ground and often distances itself from human habitation. Forages in low dense vegetation or on ground. Takes some insects but major diet is seeds. Bonded pairs spend much time together. Male sings from exposed perch. Natural history is poorly studied.

• **BREEDING** Monogamous. Solitary.

• **NESTING** Breeding biology poorly known. Incubation 12–13 days by female. Young altricial; brooded by female; stay in nest estimated 12 days, fed by both sexes. 1–2 broods per year.

• **POPULATION** Common locally in mesquite chaparral, dry washes, and arid thorn scrub, often near water.

Flight Pattern



Short flights close to vegetation, with rapid wing beats alternating with brief periods of wings pulled to sides.

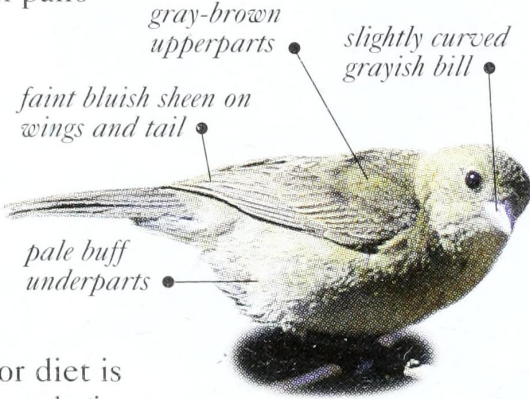
Nest Identification

Shape 

Location 

• **CONSERVATION** Neotropical migrant. Rare host to cowbird parasitism. Vulnerable to habitat loss from agriculture and development.

Stalks, grass, cotton, snakeskin, and paper, with lining of rootlets, grass, and hair • in fork of low tree or bush, usually 2–10 feet above ground • built by both sexes • 3–4 white to light blue eggs, characteristically unmarked; short to oval subelliptical, 0.7 x 0.5 inches.



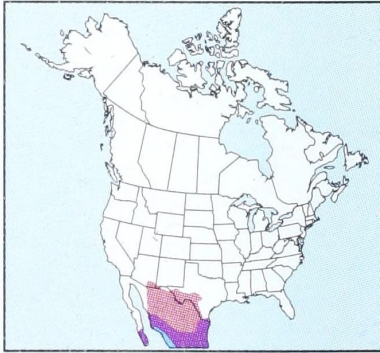
Similar Birds

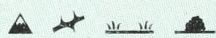


LAZULI BUNTING ♀
Gray-brown head and upperparts; white underparts; buffy wash on throat and breast; gray-blue rump; 2 narrow buffy white wing bars.



INDIGO BUNTING ♀
Brown head and upperparts; blue-tinged rump; tertials edged with buff; 2 tawny buff wing bars; whitish throat and underparts; chest and flanks washed buffy brown with dusky streaks.



Plumage Sexes differ	Habitat 	Migration Migratory	Weight 0.4 ounce
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DATE _____ TIME _____ LOCATION _____

Family CARDINALIDAE	Species <i>Passerina ciris</i>	Length 5–5.5 inches	Wingspan 8–8.5 inches
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PAINTED BUNTING

Flaunting one of the most brilliant plumages of all North American songbirds, the male is easy to identify by the dark blue head, lime-green back, and red rump and underparts. The green and yellow-green coloring of the female and juvenile serves as camouflage in the dense riparian thickets, woodland edges, and scrubby brushy areas. Males can be highly aggressive and sometimes kill one another in territorial battles. Their striking colors and warbled song have made them a popular cage bird in Mexico, Central America, and the Caribbean. Before laws prevented it, they were sold as cage birds in the United States, sometimes under the name “nonpareil.” The first spring male is similar to the female but is brighter overall and has a bluish wash on the head.

- **SONG** High-pitched musical measured warble *pew-eata, pew-eata, I eaty you too*. Call is 2-note *chip* or a “wet” *plik*.
- **BEHAVIOR** Solitary or in pairs during breeding season. Gregarious in other seasons, forming flocks and joining mixed-species foraging flocks. Shy, secretive, and often difficult to see. Male sings from exposed perch. Most often hops on ground. Forages on ground and low in trees and shrubs. Eats seeds, insects, and caterpillars.
- **BREEDING** Mostly monogamous, but some males polygynous.
- **NESTING** Incubation 11–12 days by female. Young altricial; brooded by female; stay in nest 12–14 days, fed by both sexes, but female does more. 2–3 broods per year.
- **POPULATION** Common in riparian thickets and shrubby habitats. Casual north of range.



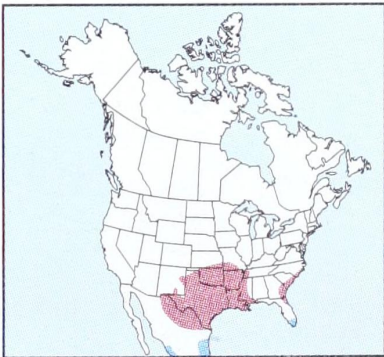
Flight Pattern

Typically, short flight low over vegetation, with rapid wing beats alternating with brief periods of wings pulled to sides.

Nest Identification

Shape	Location
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- **FEEDERS** Birdseed and sunflower seeds; uses birdbaths.
- **CONSERVATION** Neotropical migrant. Common cowbird host. Declining on the East Coast, where losing habitat to development.



Stalks, leaves, and grasses, with lining of rootlets, snakeskin, and animal hair • in dense part of bush, in low tree, or in vines or moss • 3–6 feet above ground (but up to 25 feet) • built by female • 3–5 pale blue eggs marked with reddish brown, concentrated at larger end; oval to short oval, 0.8 x 0.6 inches.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.8 ounce
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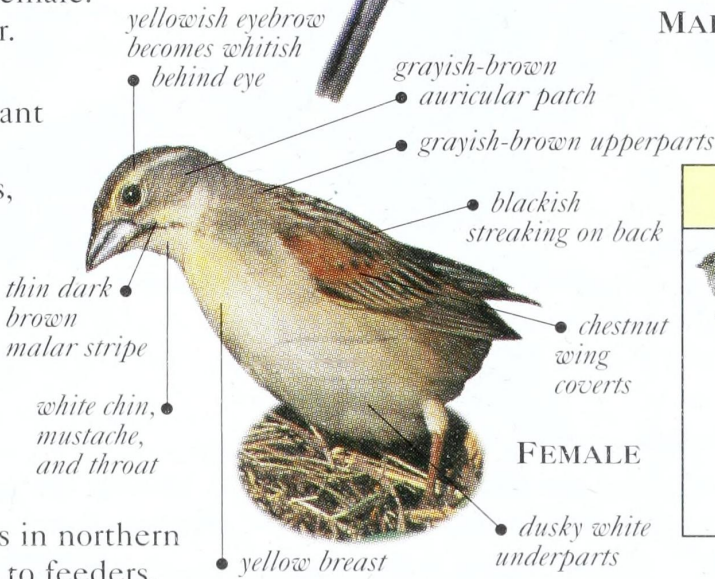
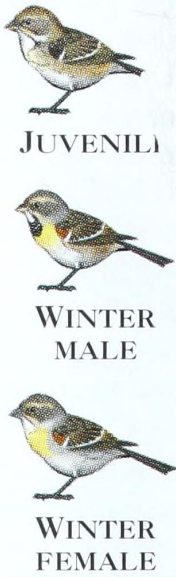
DATE _____ TIME _____ LOCATION _____

Family CARDINALIDAE	Species <i>Spiza americana</i>	Length 6–7 inches	Wingspan 9–11 inches
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DICKCISSEL

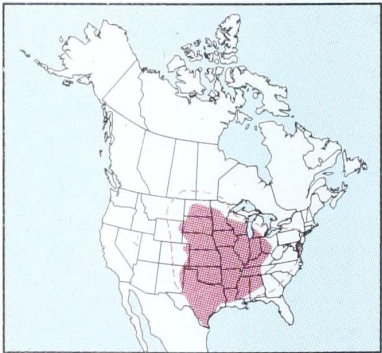
This bird is named for its song of *dick-dick-dick-cissel*. Often flying in flocks over grassy prairies, the Dickcissel, with its black bib and yellow breast, looks like a small meadowlark. Females are similar to males but lack the black bib and have duller chestnut wing patches.

- **SONG** Staccato *dick-dick-dick-cissel*. Has an insectlike call of *bzzrrrt*.
- **BEHAVIOR** Solitary or in pairs during breeding season. Gregarious at other times, forming wintering flocks numbering thousands of birds. Joins communal roosts after breeding season. Male sings from exposed perches and in flight. Forages on ground. Eats grains, seeds, and insects.
- **BREEDING** Polygamous, although some birds are monogamous.
- **NESTING** Incubation 12–13 days by female. Altricial young brooded by female; stay in nest 7–10 days, fed by female. 1–2 broods per year.
- **POPULATION** Common to abundant in grasslands, meadows, savannas, and fields. Local and irregular east of Appalachians. Rare in migration on Atlantic and Pacific Coasts. Casual in winter in the East.
- **FEEDERS** Birds in northern part of range come to feeders.



Similar Birds

 **HOUSE SPARROW** ♀
Similar to female Dickcissel • stubbier yellowish bill; buffy supercilium; brown postocular stripe; single white wing bar; lacks pale throat with dark malar stripe; lacks streaking on flanks.



Flight Pattern



Series of rapid wing beats alternating with brief periods of wings pulled to sides. Often flies in large flocks in compact undulating formation.

• **CONSERVATION** Neotropical migrant. Frequent host to cowbird parasitism. Nests and young lost annually to the mowing of fields for hay. Thousands are killed annually on wintering grounds for the protection of rice plantations.

Nest Identification

Shape 	Location 
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Grasses, stems, and leaves, with lining of soft rootlets, grasses, and hair • low in tree or bush, sometimes atop grassy tussock or on ground in field • 0–6 feet above ground • built by female • 3–5 plain pale blue eggs; oval to long oval, 0.8 x 0.6 inches.

Plumage Sexes differ	Habitat 	Migration Migratory	Weight 1.0 ounce
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DATE _____ TIME _____ LOCATION _____

Family ICTERIDAE	Species <i>Dolichonyx oryzivorus</i>	Length 6.25–8 inches	Wingspan 10.25–12.5 inches
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BOBOLINK

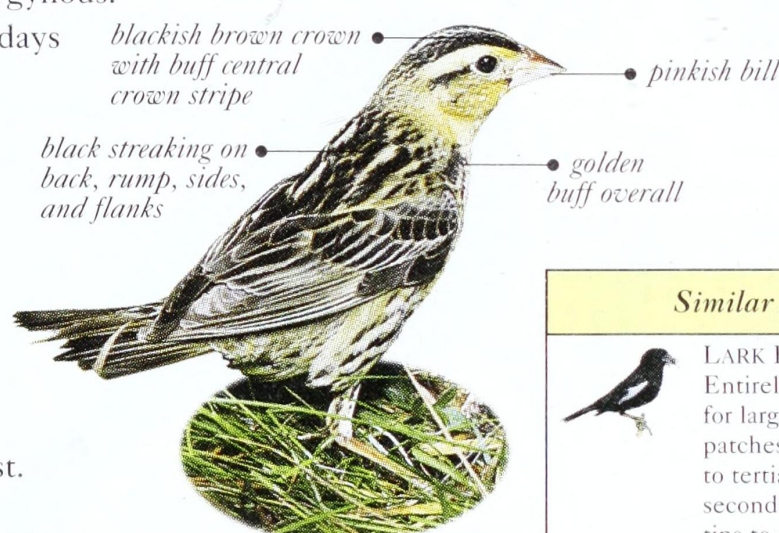
In northern meadows and farmland, this bird is known for its cheerful bubbling *bob-o-link* song and handsome plumage. It is said the male wears his breeding plumage upside down, as he has black underparts with a buff nape and hindneck and white scapulars and rump. In all plumages, birds are adorned with sharply pointed tail feathers, unusual for songbirds. All fall-plumaged birds and juveniles are similar to the female but have brighter yellow-buff underparts with less streaking.

- **SONG** Lively bubbling cascade of notes, starting with low reedy notes and rollicking upward, *bob-o-link, bob-o-link, pink, pink, pank, ink*. Call is clear *pink*.
- **BEHAVIOR** Gregarious; in flocks numbering up to thousands. Males sing from perch or in flight display, circling low over fields. In summer eats insects and caterpillars, grass and weed seeds, and grains; eats seeds and grains in migration and winter.
- **BREEDING** Strongly polygynous.
- **NESTING** Incubation 13 days by female. Altricial young brooded by female; stay in nest 10–14 days, fed by both sexes. 1 brood per year.
- **POPULATION** Fairly common to common in tall grass, wet meadows, prairie, hay fields, and grain fields. Decline in the East during 20th century. Rare in the fall on West Coast.

- **CONSERVATION** Neotropical migrant. Rare cowbird host. Vulnerable to destruction of nests and young by mowing of hayfields. Has declined in the Southeast from former 19th-century market hunting for food and from continued destruction to protect rice plantations. Similar killing currently exists on expanding rice plantations on wintering grounds in South America.



MALE



FEMALE



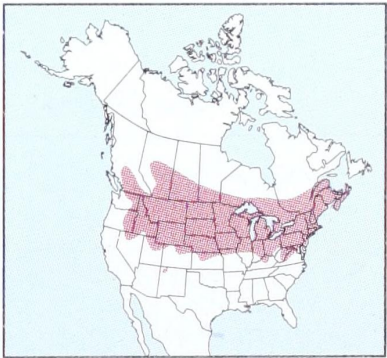
WINTER MALE

Flight Pattern	
Strong undeviating and slightly undulating flight on rapidly beating wings. Male has display flight with shallow wing strokes on rapidly fluttering wings.	

Nest Identification	
Shape	Location

Coarse grasses and weed stalks, lined with finer grasses • in slight depression on ground in tall grass, weeds, or clover, sometimes in rut made by tractors and combines • female digs scrape and then builds nest • 4–7 eggs, irregularly blotched with browns, purple, and lavender; oval to short oval, 0.82 x 0.62 inches.

Similar Birds	
	LARK BUNTING ♂ Entirely black except for large white shoulder patches, white edging to tertials and inner secondaries, and white tips to outer tail feathers.



Plumage Sexes differ	Habitat	Migration Migratory	Weight 1.7 ounces
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DATE _____ TIME _____ LOCATION _____

Family	ICTERIDAE	Species	<i>Agelaius phoeniceus</i>	Length	7.5–9.5 inches	Wingspan	12–14.5 inches
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RED-WINGED BLACKBIRD

Believed one of the most numerous land birds in North America, the Red-winged Blackbird is known for aggressively defending its territory from intruders. Many geographical races exist across its extensive range. Females, identifiable by dark brown upperparts and heavily streaked underparts, sometimes show a red tinge on wing coverts, chin, and throat. Males resemble females at a year old but have less streaking and some red on their epaulettes; they develop glossy black plumage after their second year.

- **SONG** Gurgling reedy *konk-la-ree* or *gurr-ga-lee*. Calls: low *clack*, sharp nasal *deekk*, and metallic *tiink*.
- **BEHAVIOR** Gregarious. Small breeding colonies in summer. Winter flocks often segregated by sex and age. Runs or hops while foraging on ground. Eats mostly seeds, grains, berries, and wild fruit; in summer also eats insects, caterpillars, grubs, spiders, mollusks, and snails. Male's social dominance is proportional to amount of red displayed.

- **BREEDING** Colonial. Some males polygynous.
- **NESTING** Incubation 11–12 days by female. Altricial young brooded by female; stay in nest 10–14 days, fed mostly by female. 2–3 broods per year.
- **POPULATION** Abundant to common in fields, riparian thickets and scrub, freshwater and brackish marshes.

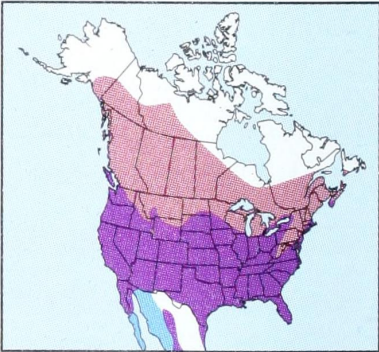
- **FEEDERS** Breadcrumbs and birdseed.
- **CONSERVATION** Vulnerable to pesticides in food chain and to habitat loss due to the drainage of wetlands. Nests and young are destroyed by mowing operations.



Similar Birds



TRICOLORED BLACKBIRD
Longer, more slender body • male's red epaulettes have whitish borders • females have darker bodies; heavier streaks on underparts; blackish bellies; lack chestnut and buff edges to upperparts; lack pink coloring on throat
• West Coast only.



Flight Pattern

Strong flight on rapidly beating wings; displaying males fly with slow stiff shallow wing beats with epaulettes raised.

Nest Identification

Shape

Location

Dried cattail leaves and sedges, lined with fine grasses and rushes • fastened to stalks or twigs with plant fibers • in cattails, bushes, trees, dense grass, or on ground, preferably near or over water • built by female • 3–5 (usually 4) pale blue-green eggs spotted or with zigzag lines of black, browns, and purple; oval, 0.97 x 0.75 inches.

Plumage	Sexes differ	Habitat		Migration	Migratory	Weight	2.3 ounces
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DATE _____ TIME _____ LOCATION _____

Family ICTERIDAE	Species <i>Agelaius humeralis</i>	Length 7.5–8.5 inches	Wingspan 12–13 inches
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TAWNY-SHOULDERED BLACKBIRD

A native of the West Indies on the large island countries of Cuba, where it is common, and western Haiti, where it is uncommon and local, this bird makes its home only in the lowlands near woodland edges, arid lowland scrub, pastures, rice fields, urban habitats, and swamps. Occasionally, vagrants find their way to the Florida Keys. The glossy black male is striking, with its long pointed bill, which is as long as its head, and its large tawny shoulder patches, which are most visible when the bird is flying. The female is similar to the male, but her shoulder patches are duller in color and smaller in size and her body has a brownish wash. Juveniles resemble females but have much smaller tawny shoulder patches.

- **SONG** A long muted buzzy *whaaaaaaaaa*. Call is a brief strong *chic-chic* or *chuck*. Also has various soft wheezing utterances, *weeee-weeee-weeee*.
- **BEHAVIOR** In pairs during breeding season. Gregarious during other seasons, forming flocks. Breeding birds not territorial, defending only immediate area around nest. Flicks wings and jerks tail. After nesting season, often forages and roosts in flocks with other blackbirds and grackles. Eats seeds, fruits, pollen, flowers, nectar, lizards, and insects. Not a blackbird of marshes, it frequents drier habitat, including croplands, open forests, and areas around human habitation.
- **BREEDING** Monogamous. Semicolonial.
- **NESTING** Breeding biology poorly known. Estimated incubation 11–13 days by female. Young altricial; brooded by female; stay in nest estimated 10–14 days, fed by both sexes. 1–2 broods per year.
- **POPULATION** Accidental to the Florida Keys. Fairly common in Cuba in open woodlands, farmlands, and open areas in

the lowlands. Survival threatened in Haiti.

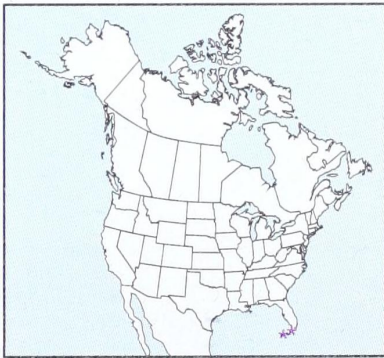
- **CONSERVATION** Vulnerable to habitat loss, especially in Haiti. Fairly common host to Shiny Cowbird parasitism in Cuba.



Similar Birds



RED-WINGED BLACKBIRD ♂
Male • larger; black overall; long pointed black bill; voice very different • when perched or feeding on ground, the red epaulettes may be hidden so that only the buffy to yellowish border is visible.



Flight Pattern	
Strong flight with slight swoops on rapidly beating wings.	
Nest Identification	
Shape	Location

Dried grasses, twigs, hair, feathers, and moss, with lining of finer material • low in palm and other trees, bush, outdoor lamp fixture, or epiphyte • built by both sexes, but female does more • 3–4 white eggs, with a bluish or greenish tint, with dark brown spotting concentrated at large end; oval, 0.9 x 0.7 inches.

Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 1.3 ounces
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DATE _____ TIME _____ LOCATION _____

Family ICTERIDAE	Species <i>Sturnella magna</i>	Length 9–11 inches	Wingspan 13.5–17 inches
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EASTERN MEADOWLARK

A common inhabitant of fields and meadows, the Eastern Meadowlark often is observed flicking its tail open and shut while walking through grass and weeds and along roadsides. Clearing of forests in eastern North America has led to the expansion of its breeding range. Fall-plumaged birds show narrow buffy mottling in the black breast band and a buffy wash on the face, supercilium, flanks, and undertail coverts. Juveniles have black spotting on the chest, sides, and flanks.

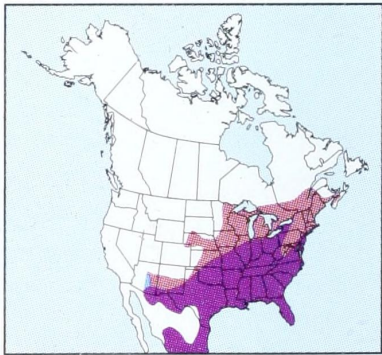
- **SONG** A plaintive *tee-you, tee-airrr*, or *spring-o'the-year*. Call given on ground or in flight is high buzzy *zzzzrrrt*, and a nasal *sweeink* also is given in flight.
- **BEHAVIOR** Solitary or in pairs during summer. Gregarious during other seasons, forming small flocks in winter. Eats mostly insects, especially in summer. Also eats grains, weed and grass seeds, and tender sprouts of spring plants.
- **BREEDING** Monogamous. Solitary. Some males polygynous.
- **NESTING** Incubation 13–14 days by both sexes. Young altricial; brooded by female; stay in nest 11–12 days, fed by both sexes, but female does more. Male may take over brood while female starts second nest. 2 broods per year.
- **POPULATION** Common in meadows, fields, grasslands, and savanna. Decline reported in the East during last quarter of the 20th century.
- **CONSERVATION** Common host to cowbird parasitism. Nests and young destroyed by mowing operations. Vulnerable to habitat loss due to natural succession of abandoned fields, as well as from overgrazing, development, and grassland habitat fragmentation.



Similar Birds



WESTERN MEADOWLARK
Paler upperparts lack dark centers in most feathers; yellow of throat, especially that of breeding males, extends into submustachial region; sides of crown and postocular stripe usually brownish; most have less white in outer tail feathers.



Flight Pattern



Several rapid shallow stiff wing beats followed by short glides close to landscape.

Nest Identification

Shape

Location

Lined with grass, plant stems, and pine needles • domed or partially domed • often next to dense clump of grass or weeds on damp or wet ground • built by female • 3–7 white eggs, suffused with pink, with brown and lavender spots and speckles; oval to short or long oval, 1.1 x 0.8 inches.

Plumage Sexes similar	Habitat	Migration Northern birds migrate	Weight 3.6 ounces
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DATE _____ TIME _____ LOCATION _____

Family ICTERIDAE	Species <i>Sturnella neglecta</i>	Length 9–11 inches	Wingspan 13.5–17 inches
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WESTERN MEADOWLARK

Its distinctive song often is the only way to distinguish this bird from the Eastern Meadowlark, which is strikingly similar in appearance. Both birds are known to be interspecifically territorial and nest in the same area, interbreeding in regions where their ranges overlap. Under such circumstances some males sing the songs of both species, creating a tricky identification challenge for the observer. Breeding adults show bright yellow plumage from throat to belly, with a black V on the chest. Fall-plumaged birds show a pale buffy wash on the face, sides, and flanks, and the yellow in submustachial regions is much reduced or veiled, as is the black breast band. Juveniles are paler and instead of the black V show a streaked necklace.

- **SONG** Repeated bubbling flutelike notes, varying in length, *shee-oo-e-lee shee-ee le-ee*, accelerating toward the end. Call is a low *chuk*. Flight note is a nasal *whew*.
- **BEHAVIOR** Solitary or in pairs during breeding season. Gregarious at other times, forming small to large flocks in winter, which forage and roost together on the ground. Walks on ground. Sings from ground or exposed perches, including fence posts, shrubs, trees, and utility wires. Forages primarily in vegetation on ground. Eats mostly insects and larvae, spiders, and some snails; also seeds of grains, grasses, and weeds. Winter birds often forage in shorter grasses along roadsides.
- **BREEDING** Monogamous. Solitary. Some males polygynous.
- **NESTING** Incubation 13–15 days by female. Young altricial; brooded by female; stay in nest 11–12 days, fed by both sexes but more by female. 2 broods per year.
- **POPULATION** Fairly common to common in cultivated fields,

pastures, grasslands, and savanna. Range expanding in the Northeast.

- **CONSERVATION** Neotropical migrant. Uncommon cowbird host. Nest and young destroyed by mowing operations.

Flight Pattern



Flies low over landscape, with series of rapid shallow stiff wing beats followed by short glide.

Nest Identification

Shape 	Location 
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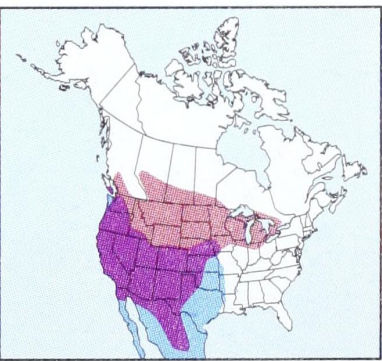
Dried grass and plant stems; domed or partially domed • lined with grasses and pine needles • against clump of grass or weeds • built by female • 3–7 white eggs, suffused with pink, with brown and lavender spots and speckles; oval or short to long oval, 1.1 x 0.8 inches.



Similar Birds



EASTERN MEADOWLARK
Darker body; dark centers to feathers on upperparts; yellow of throat generally does not reach submustachial area, barely does so on males; more extensive white on outer tail feathers; black crown and postocular stripes; voice differs.



Plumage Sexes similar	Habitat 	Migration Northern birds migrate	Weight 4.0 ounces
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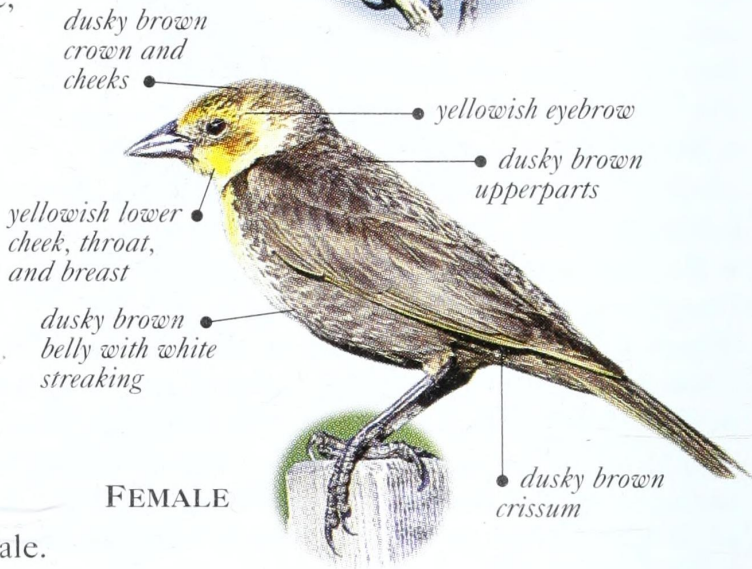
DATE _____ TIME _____ LOCATION _____

Family	ICTERIDAE	Species	<i>Xanthocephalus xanthocephalus</i>	Length	8.75–11 inches	Wingspan	14–17 inches
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YELLOW-HEADED BLACKBIRD

Brilliant yellow plumage and white wing patches contrasting with its all-black body make this robin-sized marsh bird easy to identify. Often nesting in colonies, it is highly aggressive in defending its grounds and will attack other birds and even human intruders, especially if young are in the nest. The song of the male is considered by many to be the poorest vocalization of any North American songbird. Males are larger than females, and the white wing patch is conspicuous in flight. Juveniles show dark brown upperparts with cinnamon-buff edging to the body feathers, pale buff underparts with a cinnamon wash on the flanks, an ochereous buff head and breast, a whitish throat, and dusky brown auriculars.

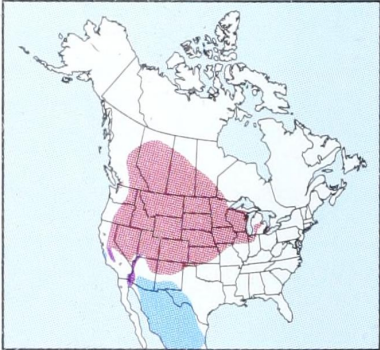
- **SONG** High-pitched raspy honking gurgle, ending with a descending buzz, *klee-klee-klee-ko-kow-w-w-w,w,w,w*. Call is hoarse *ka-aack*.
- **BEHAVIOR** Gregarious; forms breeding colonies and flocks outside breeding season. Flocks forage and roost together and range from small to enormous, containing millions in winter. Males often segregate from females and juveniles in separate winter flocks. Conspicuous. Forages in mud near water and in fields. Walks on ground. Eats insects, larvae, snails, grains, and seeds.
- **BREEDING** Polygynous. Colonial.
- **NESTING** Incubation 11–13 days by female. Young altricial; brooded by female; stay in nest 9–12 days, fed by both sexes, but mostly by female. 2 broods per year.
- **POPULATION** Common in freshwater marshes, reedy lakes and irrigation ditches, and open farmlands. Rare to casual in migration and in winter to the East Coast. Casual spring migrant to southeastern Alaska.



Flight Pattern

Strong direct flight with rapid wing beats.

• **CONSERVATION** Neotropical migrant. Rare host to cowbird parasitism. Vulnerable to habitat loss due to draining of freshwater marshes and wetlands.



Nest Identification

Shape Location

Grasses, reeds, cattails, and bulrushes, with partial canopy that shrinks into tight basket when dry • over water in marsh vegetation • 0.5–3 feet above surface • built by female • 3–5 light gray or green eggs with brownish or grayish markings; oval to long oval, 1.0 x 0.8 inches.

Plumage	Sexes differ	Habitat		Migration	Migratory	Weight	2.8 ounces
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DATE _____ TIME _____ LOCATION _____

Family ICTERIDAE

Species *Euphagus carolinus*

Length 8.25–9.75 inches

Wingspan 13–15 inches

RUSTY BLACKBIRD

This bird is named for the rusty wash on its fall and winter plumage. Only birds in juvenile plumage have dark eyes; older birds in immature plumage have yellow eyes like adults. Juvenile plumage resembles that of winter adults. Fall males have a blackish loreal mask that contrasts with the rufous wash on the rest of the plumage. The fall female has a gray rump and cinnamon-gray supercilium and underparts. Flying in large flocks from their wintering grounds, these birds will swoop down to forage behind tractors and plows.

• **SONG** A high-pitched creaky *koo-a-lee-m-eeek, koo-a-lee—eeek*. Has call notes of *chuck* or *kick*.

• **BEHAVIOR** In pairs during breeding season. Gregarious. After nesting season forms small flocks that forage and roost communally. Forms large flocks in migration and winter and joins mixed flocks with other blackbird species and starlings. Forages on ground of wet woodlands and agricultural lands or wades in marshes and small pools of water. Eats insects, caterpillars, crustaceans, small fish, salamanders, and snails. Also eats grains, seeds, and fruits.

• **BREEDING** Monogamous. Pairs.

• **NESTING** Incubation 14 days by female; male feeds incubating female on nest. Young altricial; brooded by female; stay in nest 11–14 days, fed by both sexes. 1 brood per year.

• **POPULATION** Fairly common in wet coniferous woodlands, bogs, riparian habitats, and swamps. Rare in the West.

• **CONSERVATION** Rare host to cowbird parasitism.

Flight Pattern



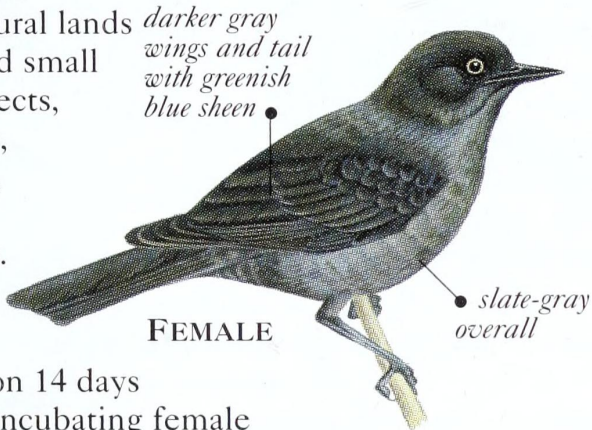
Strong direct flight on rapidly beating wings.

Nest Identification

Shape  

Location  

Grasses, moss, and twigs, with inner cup of mud lined with soft grasses and rootlets • over water in dense bush or conifer, usually 2–8 feet above ground (but up to 20 feet) • built by female • 4–5 light blue-green eggs, with brown and gray splotches; oval, 1.0 x 0.75 inches.

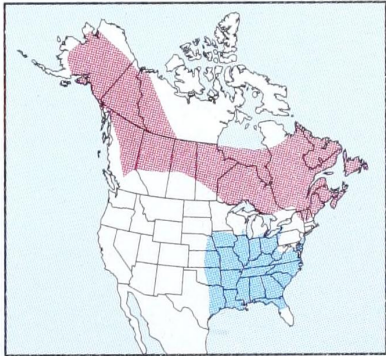


Similar Birds

 BREWER'S BLACKBIRD
Most males are black throughout year, with purplish gloss on head and neck and blue-green sheen on body, wings, and tail • female has dark eyes • some variant fall males have buff-brown edging on head and body but never on wing coverts or tertials.







Plumage Sexes differ	Habitat  	Migration Migratory	Weight 2.3 ounces
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DATE _____ TIME _____ LOCATION _____

Family	ICTERIDAE	Species	<i>Euphagus cyanocephalus</i>	Length	8.75–10.25 inches	Wingspan	14–16 inches
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BREWER'S BLACKBIRD

Huge flocks can be seen flying over farm fields during plowing season, and the species has expanded its range and abundance with the spread of agriculture. One of the most common blackbirds, the male's plumage remains glossy black year-round. In fall, some males acquire buffy edging on the head and body feathers but never on the wing coverts or tertials. Juveniles resemble females but lack the green sheen on wings and tail.

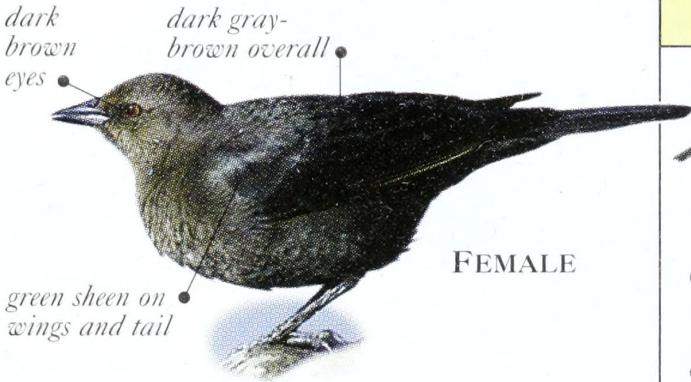
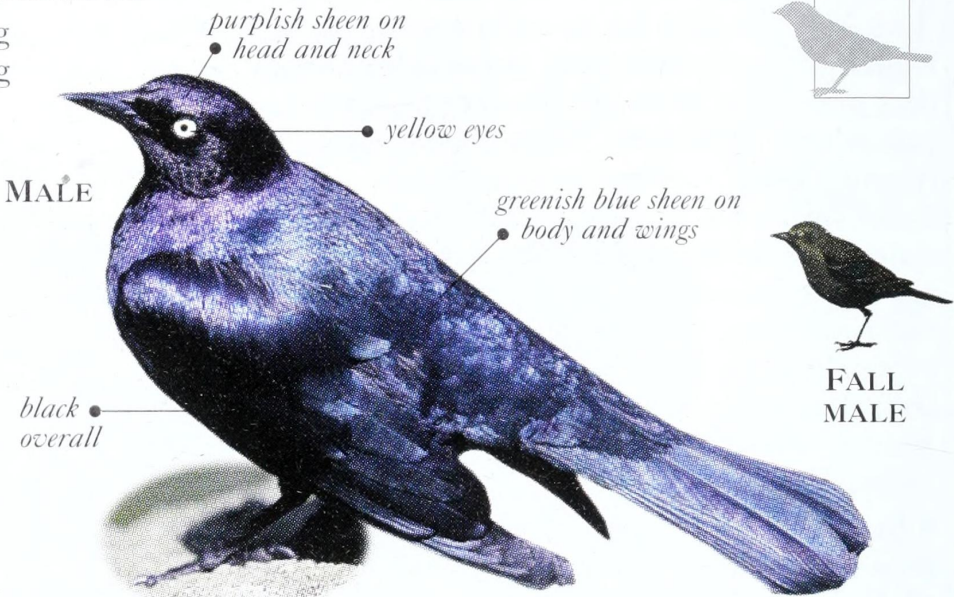
• **SONG** Breathy, creaky *ke-see*. Call is gruff *check*.

• **BEHAVIOR** In pairs during breeding season. Gregarious. Forms large foraging and roosting flocks in migration and winter.

Often joins mixed-species foraging flocks with other blackbirds in winter. Nests in small to large colonies. Head bobs forward while walking. Follows farm tractors and plows. Forages on ground. Eats insects; caterpillars; and some fruits, seeds, and grains.

• **BREEDING** Monogamous. Some males polygynous. Can be loosely colonial.

• **NESTING** Incubation 12–14 days by female, guarded by male. Altricial young brooded by female; stay in nest 13–14 days, fed by both sexes. 1–2 broods per year.



Similar Birds

- BROWN-HEADED COWBIRD ♀
Smaller; slimmer; pale face pattern; shorter, deeper-based bill; shorter tail.
- RUSTY BLACKBIRD
Faint greenish sheen on head; longer bill
• female slate-gray overall with yellow eyes
• in winter, rusty edging to feathers on back, wing coverts, and tertials
• winter male has black loreal mask; shows cinnamon edging to head, throat, breast, supercilium, and mustache
• winter female has buff eyebrow; gray rump; buffy gray underparts.

Flight Pattern



Strong swift direct flight on rapidly beating wings.

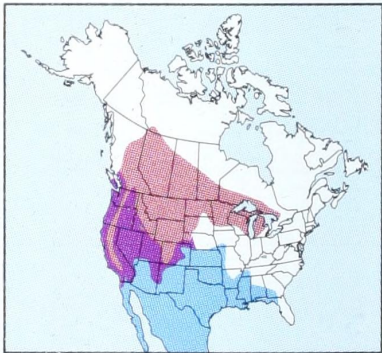
Nest Identification

Shape



• **POPULATION** Common in open habitats, shrub/scrub, riparian woodlands, farms, and around human habitation. Extending range north and east.

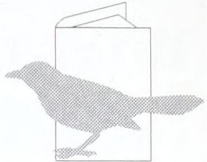
• **CONSERVATION** Neotropical migrant. Common cowbird host.



Conifer needles, grasses, and sticks, with inside cup of mud or cow manure, lined with hair and rootlets • on ground in meadow or field or in marshes or trees, up to 150 feet above ground • built by female • 3–7 light green or grayish green eggs, with blotches of grayish brown; oval, 1.0 x 0.75 inches.

Plumage	Sexes differ	Habitat	Migration	Northern birds migrate	Weight	2.4 ounces
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Family ICTERIDAE	Species <i>Quiscalus quiscula</i>	Length 11–13.5 inches	Wingspan 17–18.5 inches
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COMMON GRACKLE

This gregarious bird has expanded its range by adapting to suburban areas. Outside the nesting season, noisy groups roost together at night, often with other species. Juveniles are sooty brown with dark brown eyes.

• **SONG** Grating squeaky *coguba-leek*, like a creaking rusty hinge. Call is a bold *chuk*.

• **BEHAVIOR** Conspicuous. Nests, forages, and roosts in groups or flocks all year. Large postnesting season flocks can damage crops, and winter flocks may number in the hundreds of thousands. Walks on ground. Forages in trees, shrubs, grass, and croplands; may wade into water. Eats insects, worms, caterpillars, fruits, grains, seeds, small rodents, small fish, salamanders, and eggs and nestlings of other birds. Male displays by fluffing out shoulder feathers to make a ruffled collar, drooping his wings, and singing.

• **BREEDING** Monogamous. Some males polygynous. Colonial.

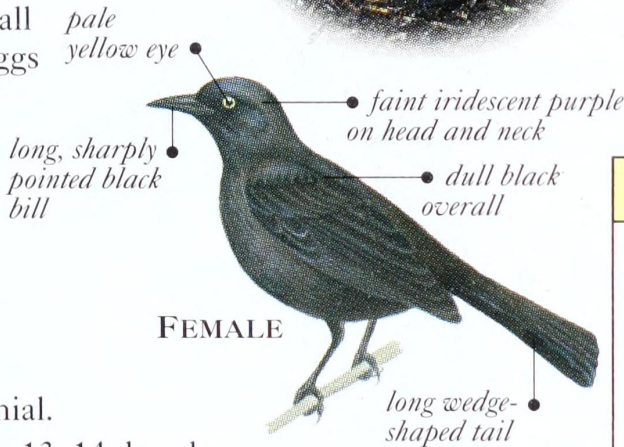
• **NESTING** Incubation 13–14 days by female. Young altricial; brooded by female; stay in nest 16–20 days, fed by both sexes. 1–2 broods per year.

• **POPULATION** Abundant and widespread in open areas with scattered trees, open woodlands, agricultural areas, parks, and around human habitation. Casual in southern Alaska and in the Pacific states.

- **FEEDERS** Will come for small grains and seeds.
- **CONSERVATION** Rare host to cowbird parasitism. Birds feeding on crops and making a nuisance in large winter roosts sometimes are destroyed.



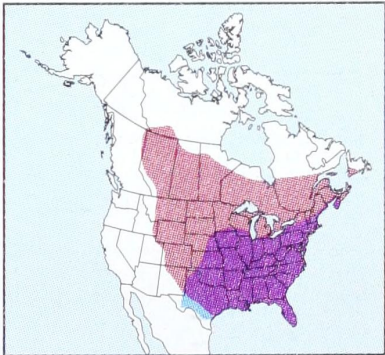
MALE



FEMALE

Similar Birds

	♂	GREAT-TAILED GRACKLE
	♀	BOAT-TAILED GRACKLE
Lack glossy contrast between head and body; larger; longer tail		
• females have dark brownish upperparts and cinnamon or pale brown and buff underparts		
	♂	• Boat-tailed Grackle ranges along Atlantic and Gulf Coasts.
	♀	



Flight Pattern	
Strong swift direct flight with rapid wing beats; holds tail folded in a V shape while flying.	

Nest Identification	
Shape	
Location	

Bulky mass of stems, sticks, grasses, and seaweed, with mud lining and softer lining of feathers, grasses, and bits of debris • high in tree, in shrub, set in marsh, in hollow of old tree, under eave of building, or among highway plantings, usually 2–12 feet above ground (but up to 100 feet) • built by female • 4–7 light brown or light green eggs, with brown and lilac markings; oval, 1.2 x 0.82 inches.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 4.5 ounces
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DATE _____ TIME _____ LOCATION _____

Family ICTERIDAE	Species <i>Quiscalus major</i>	Length 12–17 inches	Wingspan 18–23.5 inches
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BOAT-TAILED GRACKLE

This large noisy grackle travels, eats, sleeps, and nests in groups. It frequents saltwater marshes and, except in Florida, is never found far inland. It walks the beaches, large keel-shaped tail held high above its back, wading into the water for food, examining the wrack line, or gleaning seeds and berries from dune vegetation. Brown eyes occur in western Gulf Coast races east to Mississippi; farther east adults have yellow eyes. Males are larger than females. Juveniles have dark eyes and are similar to respective adults; males lack the iridescent sheen; females have faint spotting and streaking on the breast.

• **SONG** Abrasive loud repeated *jeeb, jeeb, jeeb*. Calls a noisy variety of harsh whistles, chucks, guttural rattles, raspy clicks, and wolf whistles.

• **BEHAVIOR** Gregarious. Steals food from other birds. Diet includes small fish, frogs, snails, aquatic and terrestrial insects, shrimp, small birds, eggs and nestlings of other birds, small reptiles, fruit, berries, grain, and seeds. Many in northernmost populations winter in Virginia.

• **BREEDING** Promiscuous. Loose colonies. Displaying male perches, spreads tail and wings, then bows toward female. Does not hybridize with Great-tailed Grackle in overlapping zone.

• **NESTING** Incubation 13–15 days by female. Altricial young brooded by female; stay in nest 12–15 days, fed by female. 2–3 broods per year.

• **POPULATION** Common in coastal salt marshes and adjacent open habitats, agricultural areas, and around human habitations;

inland in Florida around lakes, canals, and freshwater marshes. Northeastern range expanding.

• **CONSERVATION** Vulnerable to loss of habitat due to draining of marshes for agriculture and development.

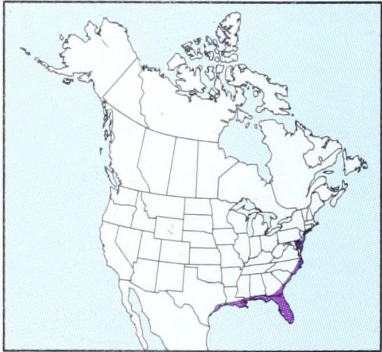


Similar Birds

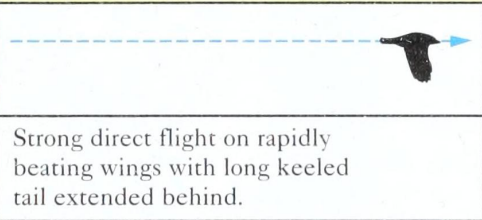


GREAT-TAILED GRACKLE
Larger; bright yellow eyes; longer bill; flatter crown • inland west of Mississippi River.

SMOOTH-BILLED ANI
Dark eyes; thick curved bill; long graduated tail.



Flight Pattern



Strong direct flight on rapidly beating wings with long keeled tail extended behind.

Nest Identification



In marsh vegetation; bulky and built of dried stalks, grasses, and cattails, usually over or near water in marsh or on ground set in grass • in trees, built of Spanish moss, feathers, mud, cow dung, and bits of debris, 3–50 feet above ground • built by female • 3–5 pale blue to blue-gray eggs with splotches of black, brown, lilac, and gray; oval, 1.3 x 0.88 inches.

Plumage Sexes differ	Habitat	Migration Northern birds migrate	Weight 7.5 ounces
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DATE _____ TIME _____ LOCATION _____

Family	ICTERIDAE	Species	<i>Quiscalus mexicanus</i>	Length	10.5–18.5 inches	Wingspan	13.5–25 inches
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GREAT-TAILED GRACKLE

The Great-tailed and Boat-tailed Grackles were once considered to be one species. Although these birds nest closely in coastal eastern Texas and western Louisiana, they do not interbreed. This bird often walks on the ground with its large keel-shaped tail cocked over its back. Walking in the open, males turn like weathervanes when a strong gust of wind strikes their tails. Males are larger than females. Juveniles are similar to females with a grayish brown belly but with streaked underparts and dark eyes.

• **SONG** Loud chatters, squeaks, gurgles, shrieks, and piercing ascending whistles; high-pitched squeal of *may-reee, may-reee*. Flight call is *chak*.

• **BEHAVIOR** Gregarious, noisy; in groups and small flocks. In winter, flocks forage and roost together. Forages walking on ground and wading in water. Eats insects, snails, small fish, frogs, shrimp, small birds, eggs and nestlings, fruits, berries, seeds, and grains. Steals food from other birds; females pilfer nesting materials from each other.

• **BREEDING** Polygamous to promiscuous. Colonial. Male claims territory within colony and displays and sings in front of a group of females. Female chooses male.

• **NESTING** Incubation 13–14 days by female. Young altricial; brooded by female; stay in nest 20–23 days, fed by female. 1–2 broods per year.

• **POPULATION** Common in open areas with scattered trees, cultivated areas, marshes, riparian thickets, parks, and around human habitation.

Agricultural irrigation in arid regions helping expand range.

• **CONSERVATION** Removes cowbird eggs from nest.

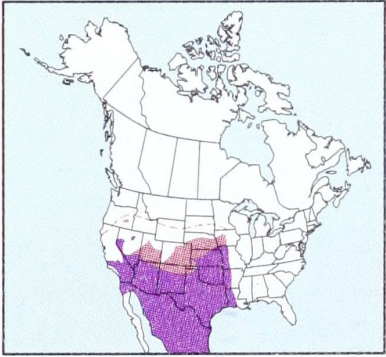


MALE



FEMALE

Similar Birds	
	BOAT-TAILED GRACKLE Smaller; rounder head; smaller bill; smaller tail • brown-eyed birds occur where ranges overlap • only in the East.
	
	COMMON GRACKLE Smaller; shorter tail; smaller bill • female is dull black.
	



Flight Pattern	
	
Strong direct flight with rapid wing beats and long keeled tail trailing behind.	

Nest Identification	
Shape 	Location   

In marsh vegetation, bulky and built of cattails, grasses, and dried rushes, less than 2 feet above water • in trees, built of Spanish moss, mud, cow dung, feathers, and bits of debris, 5–15 feet above ground • built by female • 3–4 light gray to light blue eggs, with reddish purple markings; oval, 1.3 x 0.9 inches.

Plumage	Sexes differ	Habitat	 	Migration	Northern birds migrate	Weight	6.7 ounces
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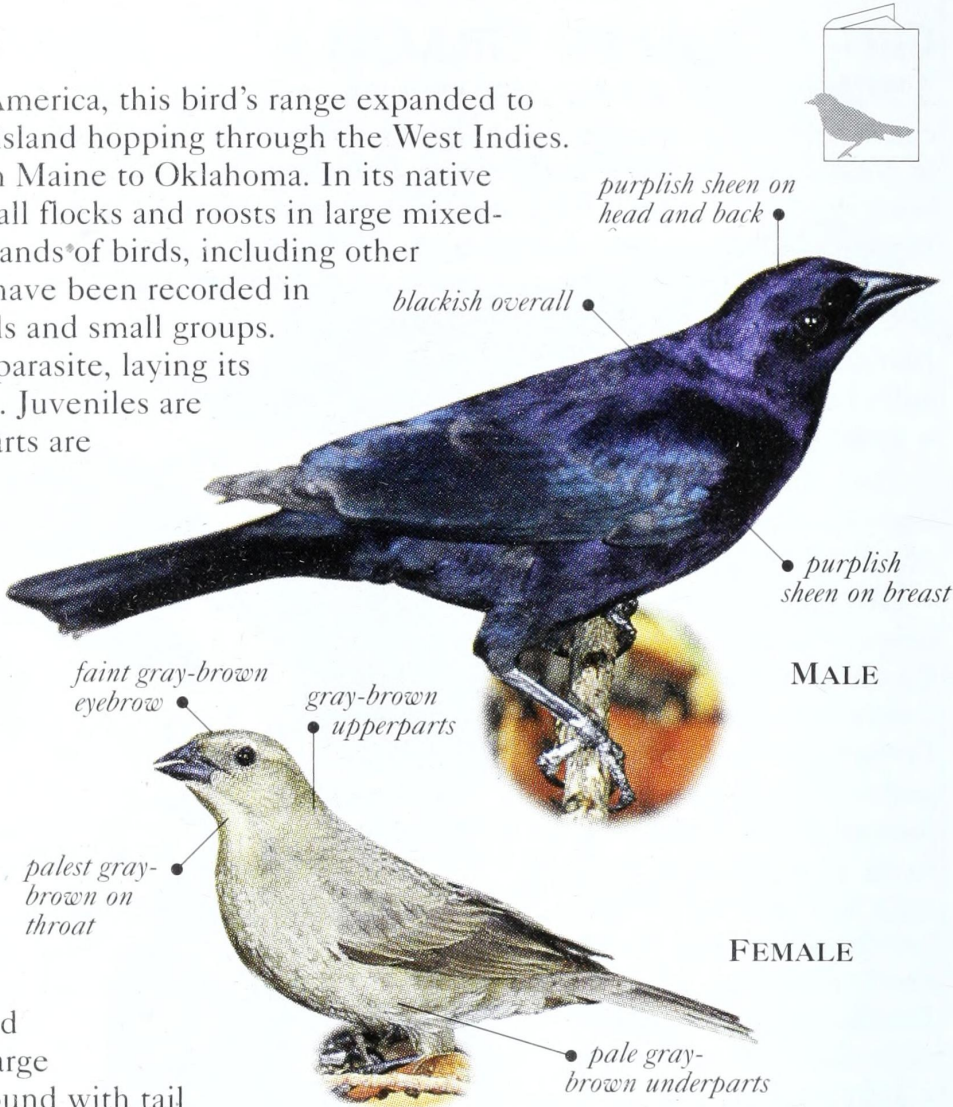
DATE _____ TIME _____ LOCATION _____

Family	ICTERIDAE	Species	<i>Molothrus bonariensis</i>	Length	7.5 inches	Wingspan	12 inches
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SHINY COWBIRD

Originally a species of South America, this bird's range expanded to southern Florida in 1985 after island hopping through the West Indies. Now records are scattered from Maine to Oklahoma. In its native range, it travels singly or in small flocks and roosts in large mixed-species flocks with up to thousands*of birds, including other blackbirds. No large numbers have been recorded in North America, only individuals and small groups. Like all cowbirds it is a brood parasite, laying its eggs in the nests of other birds. Juveniles are similar to females, but upperparts are edged with brownish buff and underparts are yellow-buff and streaked.

- **SONG** Series of bold musical bubbling warbles, sometimes interspersed with harsher piercing whistled notes and often followed by trills. Calls are harsh notes. Often sings in flight.
- **BEHAVIOR** Solitary or in small groups during breeding season. Forms small foraging flocks after breeding season and may roost with other birds in large communal roosts. Walks on ground with tail slightly cocked above back. Forages on ground for food. Eats insects, caterpillars, seeds, and rice.
- **BREEDING** Promiscuous. Male displays by singing, vibrating wings, and lifting bill up and down with neck feathers puffed up. In flight display male flies up to about 3 feet above ground and makes circles around watching female.
- **NESTING** Incubation 11–12 days by host. Altricial young often hatch before young of host species and often outcompete host's young, which often succumb; tended by host. Female usually lays 1 egg in each host nest; may lay eggs in 5 different



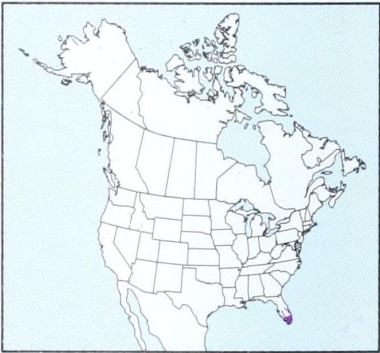
Similar Birds



♂ BROWN-HEADED COWBIRD
Shorter, less pointed bill; shorter tail • male glossy black overall with chocolate-brown head



♀ • female has ashy gray-brown upperparts and paler gray underparts.



Flight Pattern



Rapid swooping direct flight on quickly beating wings.

Nest Identification

Shape	Brood parasite	Lays eggs in nests of other species • usually 1 egg per nest • 1 whitish to light blue or light pink egg, sometimes unmarked or with flecks and dots of brown and gray; spherical, 0.8 x 0.66 inches.
Location	Active nests of other birds	

- **POPULATION** Rare to uncommon in North America.
- **FEEDERS** Soaked bread.
- **CONSERVATION** Naturally invading nonnative species.

Plumage	Sexes differ	Habitat		Migration	Migratory	Weight	1.4 ounces
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Family ICTERIDAE

Species *Molothrus aeneus*

Length 6.5–8.75 inches

Wingspan 10–13 inches

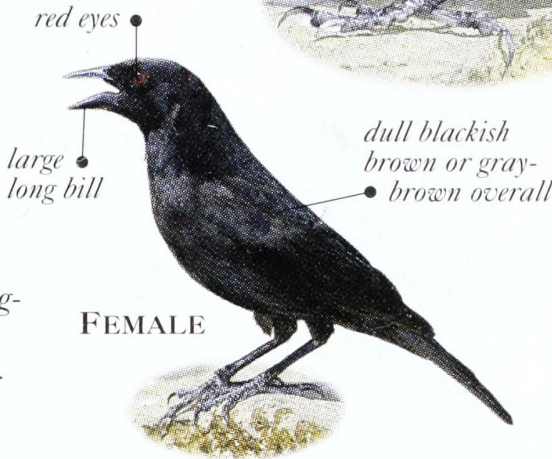
BRONZED COWBIRD

Both male and female have small neck ruffs, which fluff during breeding season and give the bird a hunchbacked look. Formerly called the Red-eyed Cowbird, this characteristic is visible only at close range. Flocks often follow cattle to eat insects that are kicked up. In the eastern race, the dark-eyed juveniles are blackish brown and similar to the female but lack the bluish sheen on upperparts. In the western race, the dark-eyed juvenile is paler brown than the female, which has gray-brown upperparts, paler gray-brown underparts, and an even paler gray-brown throat. Birds inhabiting the southernmost tip of Texas do not migrate.

- **SONG** Low guttural wheezy insectlike *glug-glug-glee*. Call is abrasive *chuk*.
- **BEHAVIOR** Solitary or in pairs or small groups during breeding season. During other seasons, forages in flocks and uses communal roosts. Males perch and sing from exposed sites to attract females. Turns over rocks with bill to find insects. Eats insects, seeds, and grains. Often found near human habitation.
- **BREEDING** Polygamous. Promiscuous.
- **NESTING** Incubation 10–12 days by host. Altricial young often hatch earlier than young of host species; tended by host. Female usually lays 1 egg in each nest; lays 8–10 eggs per year; may destroy host's eggs and any eggs laid in the nest by



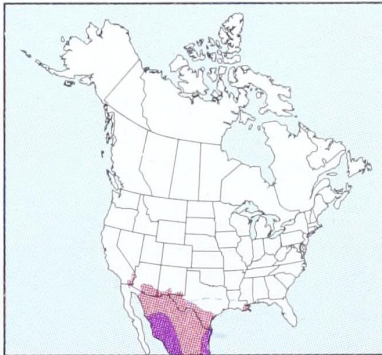
MALE



FEMALE

Similar Birds

- ♂ BROWN-HEADED COWBIRD
Smaller; dark eyes; smaller slimmer bill; distinct rounded forehead • male glossy black overall with brown head • female usually more ashy brown overall with trace of pale face pattern.
- ♀
- ♂ SHINY COWBIRD
Smaller; dark eyes; smaller bill • male glossy black with purple sheen on head, back, and breast • female has gray-brown upperparts; paler underparts; paler throat; faint pale gray eyebrow.
- ♀



Flight Pattern

Swift somewhat swooping direct flight on rapidly beating wings.

- **POPULATION** Common and local in open country with brushy scrub, agricultural areas, wooded canyons, and around human habitation.
- **FEEDERS** Small seeds and various grains.

Nest Identification

Shape Brood parasite
Location Active nests of other birds

Lays eggs in nests of other species • generally 1 egg in each nest • female lays 8–10 eggs per year • eggs usually glossy light blue-green, unmarked; spherical to oval, 0.8 x 0.68 inches.

Plumage Sexes differ

Habitat

Migration Most migrate

Weight 2.4 ounces

DATE _____ TIME _____ LOCATION _____

Family ICTERIDAE	Species <i>Molothrus ater</i>	Length 7–8.25 inches	Wingspan 11.75–13.75 inches
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BROWN-HEADED COWBIRD

This common cowbird travels and roosts in large flocks with other blackbirds after breeding season; winter mixed-species flocks can number in the millions. Originally of the Great Plains, where it associated with bison, this species has expanded its range east and west, with the fragmentation of the eastern forest and the increase in range cattle and ranching. Like all cowbirds it is a brood parasite and lays its eggs in the nests of other birds.

Juveniles resemble females but are paler overall; upperparts have pale edging, giving a scaly effect; underparts are streaky and throats gray-white.

• **SONG** Gurgling liquid *glug-glug-glee*, with tail spread, wings drooped, and a forward bow. Female's call is harsh rattle. Male in flight has high slurred *ts-eee!*

• **BEHAVIOR** Solitary, in pairs, or small groups during breeding season; otherwise gregarious, foraging and roosting in flocks. Calls and displays from the ground or high exposed perches. Walks on ground to forage. Holds tail cocked over back. Eats insects, caterpillars, spiders, and various grains, seeds, and fruits.

• **BREEDING** Promiscuous.

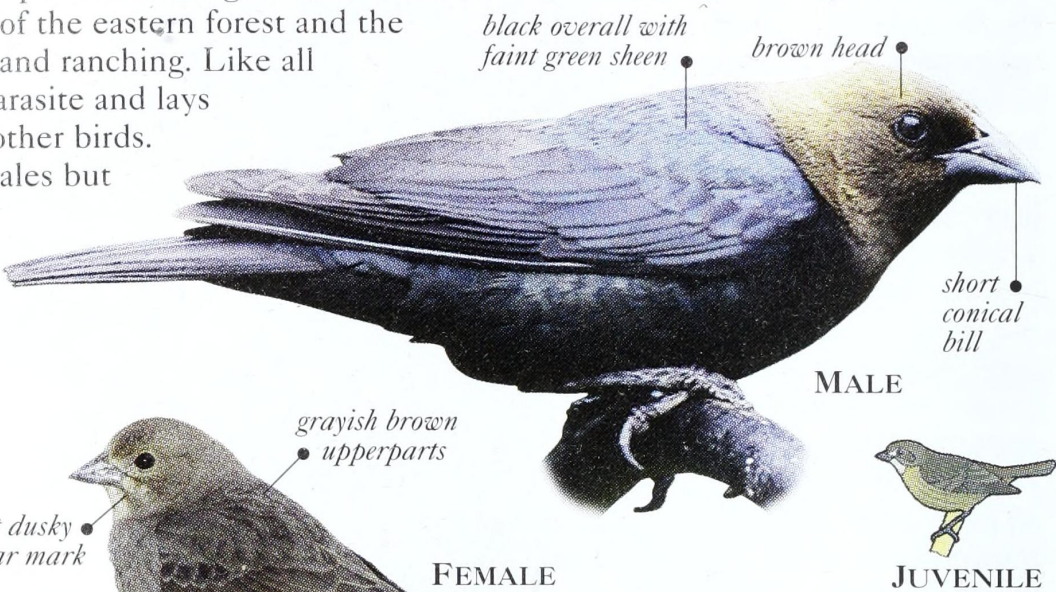
• **NESTING** Incubation 10–13 days by host. Altricial young usually hatch before host's young and often outcompete them; tended by host. Female usually lays 1 egg in each nest; 10–36 eggs per year.

• **POPULATION** Common in woodlands, forest edge, agricultural areas, and around human habitation.

• **FEEDERS** Attends for small seeds and grains.

• **CONSERVATION** Neotropical migrant. Numbers reduced in Michigan by trapping to protect endangered Kirtland's Warbler in jack pine barrens nesting grounds.

Lays eggs in nests of other species • usually 1 egg per nest • up to 36 eggs laid per female per nesting season • light blue eggs, often with brown flecks; oval, 0.84 x 0.64 inches.



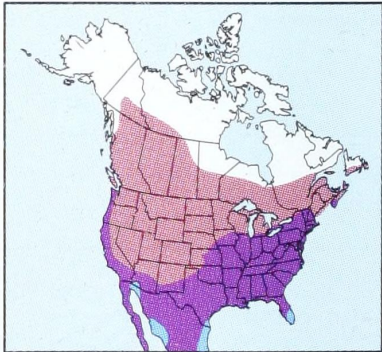
Similar Birds

 **BRONZED COWBIRD**
Slightly larger; much longer, larger bill; red eyes; ruff on nape • male has bronze-green sheen on head and upper body • female is dull blackish brown overall.



 **SHINY COWBIRD**
Male glossy black overall with purplish sheen on head, back, and breast • female has gray-brown upperparts; faint gray eyebrow; pale gray-brown underparts; paler gray throat.





Flight Pattern



Swift somewhat swooping direct flight on rapidly beating wings.

Nest Identification

Shape Brood parasite

Location Active nests of other birds

Plumage Sexes differ	Habitat 	Migration Northern birds migrate	Weight 1.7 ounces
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Family ICTERIDAE

Species *Icterus spurius*

Length 6–7.75 inches

Wingspan 9.25–10.25 inches

ORCHARD ORIOLE

This small oriole with its burnt-orange underparts is found in most of eastern North America in summer. It spends most of its time in trees in suburban and rural open stands and is often unwary when approached. Juveniles resemble females, and first spring males are similar to females but have a black chin and throat. Leaves breeding grounds in early fall.

• **SONG** Loud rich varied whistled notes, accelerating into a jumbled ending with a slurred *wheel!*, sounding like *look here, what cheer, wee yo, what cheer, whip yo, what wheel!* Calls sharp musical *chuk* and a dry chattering *chuh-huh-huh-huh*.

• **BEHAVIOR** Solitary or in pairs during breeding season. In small family groups after nesting. Vocal and often conspicuous. Relatively approachable. Forages at middle to high levels in trees and shrubs, often at tips of branches; hops from branch to branch. Eats insects; also berries, flower parts, nectar, and fruits.

• **BREEDING** Monogamous. Solitary and loose colonies.

• **NESTING** Incubation 12–14 days by female. Altricial young brooded by female, some by male; stay in nest 11–14 days, fed by both sexes. Mates often divide fledglings and care for them separately, but family group remains intact until fall migration. 1 brood per year.

• **POPULATION** Common to fairly common in open woodland, farmlands, scrub/mesquite, shade trees, and orchards. Declining in parts of western range.

• **FEEDERS** Fruit and nectar.

• **CONSERVATION** Neotropical migrant. Common host to cowbird parasitism.

Flight Pattern



Swift slightly swooping direct flight on rapidly beating wings.

Nest Identification

Shape

Location

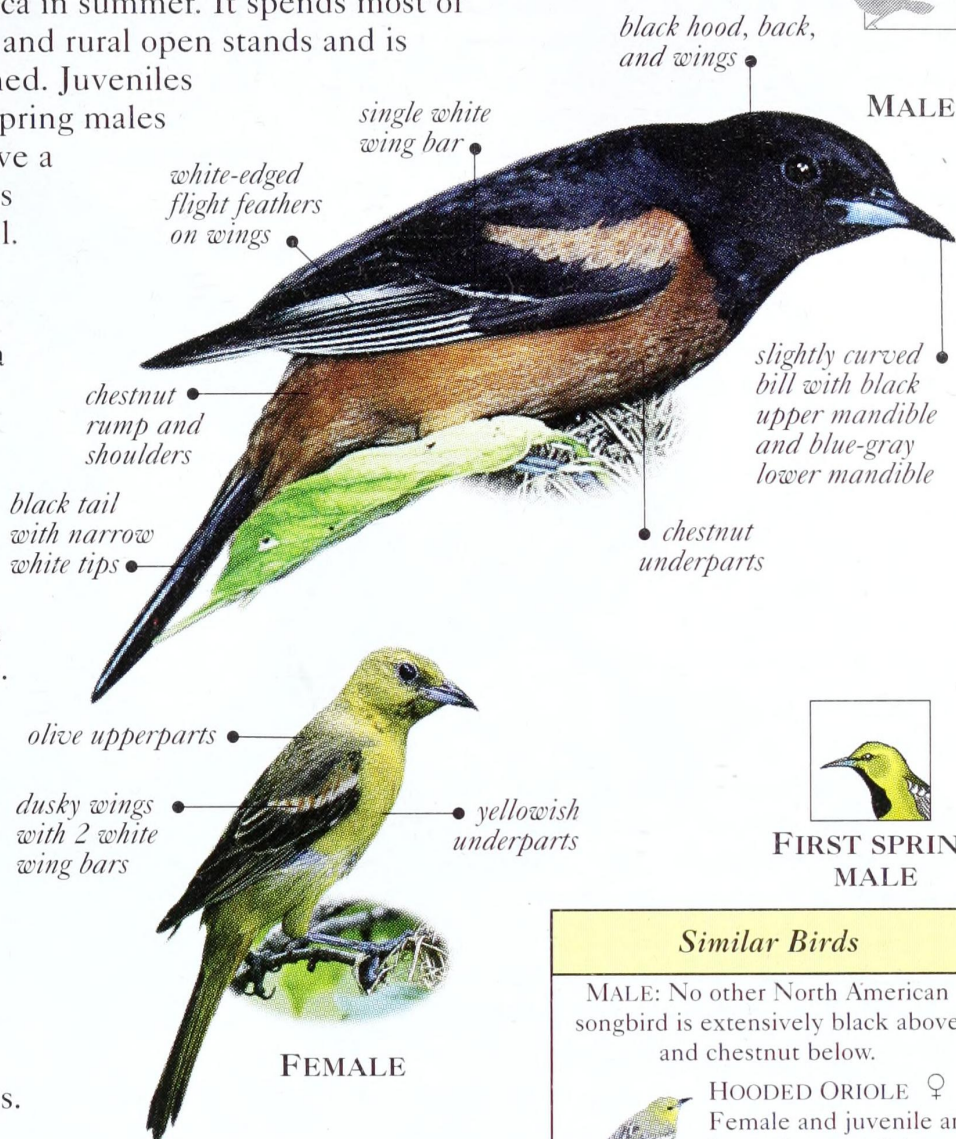
Intricately woven pouch of grasses with lining of plant down • hanging from fork of tree or bush, often hidden in cluster of leaves, 6–20 feet above ground (but up to 50 feet) • 3–7 light blue or gray eggs, splotched with gray, purple, or brown; oval, 0.8 x 0.57 inches.

Plumage Sexes differ

Habitat

Migration Migratory

Weight 0.7 ounce



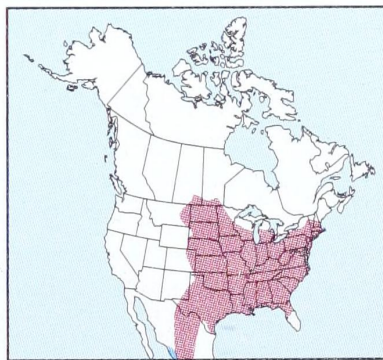
FIRST SPRING MALE

Similar Birds

MALE: No other North American songbird is extensively black above and chestnut below.



HOODED ORIOLE ♀
Female and juvenile are larger; longer tail; longer bill; thinner lower wing bar; undertail coverts often washed yellow-orange • juvenile male has more extensive black bib.



Family ICTERIDAE	Species <i>Icterus cucullatus</i>	Length 7–8 inches	Wingspan 11.25–12 inches
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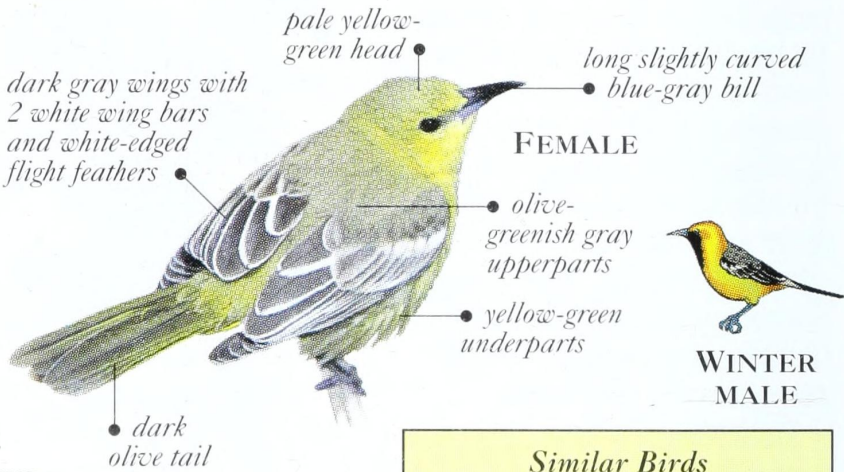
HOODED ORIOLE

This bird flits from treetop to treetop and sometimes hangs upside down like a chickadee. It is associated with palm trees in its breeding range, most often nesting in them. The breeding male's orange-yellow head, black lores and bib, and white wing bars are distinctive. There is color variation in the males of different races, ranging from bright orange to bright yellow. Juveniles are similar to adult females. First spring males resemble females but have black lores and bib.

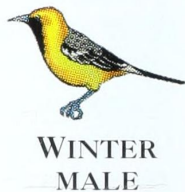
- **SONG** Throaty warbled whistles interspersed with chatter notes. Call is ascending whistled *wheet*; also series of chatters.
- **BEHAVIOR** Solitary or in pairs or small groups. Originally a riparian species; it now is often found around human habitation. Forages in trees and bushes. Eats insects and caterpillars. Uses bill to ingest nectar, piercing the flower's base and bypassing its stamens and style, thus not acting as a pollinator.
- **BREEDING** Monogamous. Solitary. Displaying male chases female and bows to her from branches.
- **NESTING** Incubation 12–14 days by female. Young altricial; brooded by female; stay in nest 14 days, fed by both sexes. 2–3 broods per year.
- **POPULATION** Common in riparian woodland, palm groves, arid scrub/mesquite, and around human habitation. West Coast



MALE



FEMALE

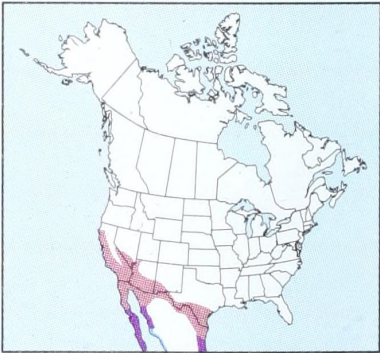


WINTER MALE

Similar Birds



ORCHARD ORIOLE ♀
Female and juvenile male • smaller; shorter bill; wider lower white wing bar • juvenile male has smaller bib.



Flight Pattern



Strong rapid direct flight on rapidly beating wings.

Nest Identification

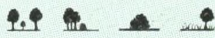
Shape 

Location 

range expanding northward with planting of palms and ornamental landscaping plants.

- **FEEDERS** Bread and fruit; also drinks sugar water mixture.
- **CONSERVATION** Neotropical migrant. Common cowbird host.

Leaves and moss, with lining of moss, grasses, wool, hair, and feathers • hanging from branch, surrounded by Spanish moss or mistletoe, in palm, palmetto, or yucca, 12–45 feet above ground • built by female • 3–5 white, light yellow, or pale blue eggs, with dots of gray, brown, and purple; oval to long oval, 0.9 x 0.7 inches.

Plumage Sexes differ	Habitat 	Migration Migratory	Weight 0.8 ounce
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Family	ICTERIDAE	Species	<i>Icterus pectoralis</i>	Length	8.25–9.5 inches	Wingspan	12.5–14.5 inches
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SPOT-BREASTED ORIOLE

The black spots on its bold orange breast set this bird apart from other North American orioles. Originally a native of southern coastal Mexico and Central America, it was introduced into southeastern Florida in the late 1940s, where it is now established. It most often makes its home in suburban areas. In flight it shows large white patches in the wings and a yellow-orange to bright orange rump and uppertail coverts. Woven in less than a week, its pendant nest is a pyriform pouch of plant fibers and thin rootlets up to eighteen inches long, with the opening at the top. Immatures are similar to adults but have a dusky olive back and often lack the breast spots. Juveniles resemble immatures but are more yellow overall and lack the breast spotting and black lores and bib.

- **SONG** A liquid series of rich clear slow whistles, *wee ch-wee'chu-u*. Male noted for his song. Female also sings. Calls a loud nasal note, *nyeh*, sometimes repeated jerkily.
- **BEHAVIOR** In pairs much of the year. In family groups following nesting. Forages in shrubs and trees, where it gleans insects, prying open rolled leaves. Eats fruit and berries. Uses sharp bill to pull flowers off stems and drink nectar.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Breeding biology poorly known. Estimated incubation 12–14 days by female. Young altricial; brooded by female; stay in nest estimated 12–14 days, fed by both sexes. 2 broods per year.

- **POPULATION** Uncommon and local in parks, suburbs, and gardens. Numbers declining in Florida since the 1980s.
- **CONSERVATION** Cause of decline in the introduced population is undetermined.

Flight Pattern	
	Strong swift direct flight with rapid wing beats.
Nest Identification	
Shape 	Location 

Grasses, stems, and fibers, with lining of finer material • hangs across tree branch • 20–60 feet above ground • built by female with some help from male • 3–5 light blue to white eggs, scrawled with black and lilac markings; oval to long oval, 0.9 x 0.7 inches.



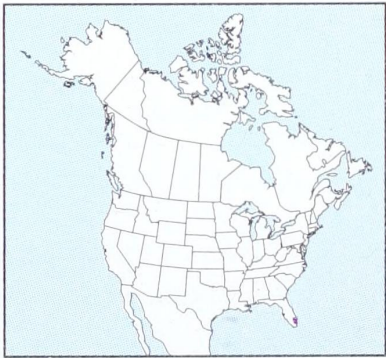
JUVENILE

Similar Birds

There is no bright orange oriole with an orange head, black bib, and breast spots in introduced range during breeding season.



BALTIMORE ORIOLE ♀
Wintering female and juvenile • 2 white wing bars; blue-gray bill; unspotted breast; lacks white patches in secondaries.



Plumage	Sexes similar	Habitat   	Migration	Nonmigratory	Weight	1.6 ounces
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DATE _____ TIME _____ LOCATION _____

Family	ICTERIDAE	Species	Icterus gularis	Length	9–10 inches	Wingspan	13.5–15 inches
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ALTAMIRA ORIOLE

The largest of the North American orioles, this bird intricately weaves a two-foot-long pendant-shaped nest. A native of Mexico, it has a small range in the southern tip of Texas, where it is a year-round resident. It resembles a larger version of the Hooded Oriole but with a larger bill and an orange shoulder patch in adults. A white wing patch shows in flight. The female is duller overall than the male. The immature is similar to the adult female but has an olive-brown back and tail and a white shoulder bar. The juvenile is similar to the immature but lacks the black lores and bib. This bird was formerly called Lichtenstein's Oriole.

- **SONG** Rapid series of 2–4 clear flutelike whistles, *chee-choo', chee-choo'*, repeated. Male and female sing often. Call is nasal *yehnk!*
- **BEHAVIOR** In pairs for much of year. In family groups after breeding. Often with other orioles. Forages high in trees and in shrubs. Eats insects, caterpillars, and fruits and berries. The 14- to 26-inch-long, 6-inch diameter pendant nest may take the female 18 days to build and is the longest fibrous nest built by any bird north of Mexico. The entrance is at the top, and nest hangs in the open near the tip of a drooping branch from middle levels to high in a tree. Sometimes attached to a utility wire.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Breeding biology poorly known. Estimated incubation 12–14 days by female. Young altricial; brooded by female; stay in nest estimated 12–14 days, fed by both sexes. Male takes over feeding of first brood while female begins construction of second nest. 2 broods per year.
- **POPULATION** Uncommon to fairly common and local in riparian woodlands, open woodlands, arid scrub, and mesquite in the lower Rio Grande Valley of southeastern Texas.



Similar Birds



HOODED ORIOLE
Smaller; more narrow bill; more extensive black bib • winter adults have olive-brown backs with fine black barring • all plumages and ages have white shoulder patches.



Flight Pattern

Swift strong flight on wings that are rapidly beating.

Nest Identification

Shape Location

- **CONSERVATION** Frequent cowbird host. Vulnerable to habitat loss due to clearing for agriculture and development.

Grasses and plant fibers, suspended from branch of tree or utility wire • built by female • 3–4 white eggs, heavily marked with browns; oval to long oval, 1.16 x 0.75 inches.

Plumage	Sexes similar	Habitat		Migration	Nonmigratory	Weight	2.1 ounces
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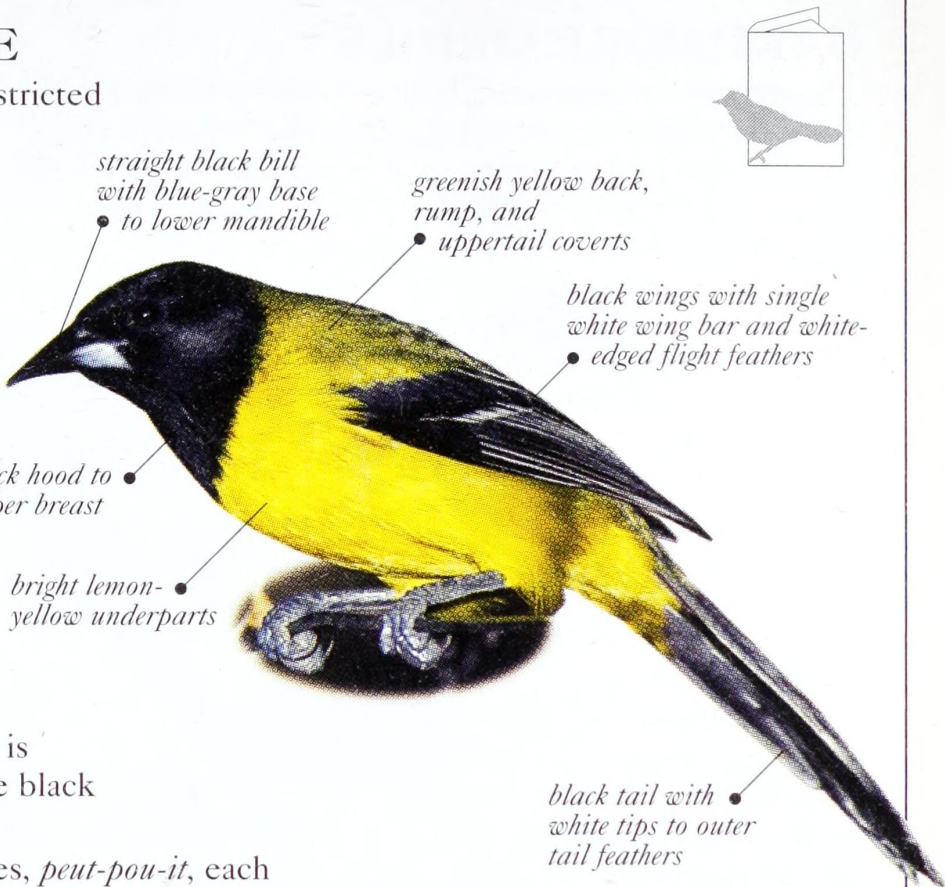
DATE _____ TIME _____ LOCATION _____

Family ICTERIDAE	Species <i>Icterus graduacauda</i>	Length 8.5–9.5 inches	Wingspan 13.5–14.5 inches
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AUDUBON'S ORIOLE

A tropical species almost entirely restricted to Mexico, this bird has a limited US range, along with the Altamira Oriole, along the lower Rio Grande Valley in southern Texas. It most often stays hidden in dense trees and thickets. The male and female are usually together and may stay that way throughout the year. Formerly called the Black-headed Oriole, this species is little known biologically. Females are similar to males but appear slightly duller. The immature resembles the adult female but shows an olive tail and gray-brown wings. The juvenile is similar to the immature but lacks the black hood and has an olive-green crown.

- **SONG** Soft series of 3-note warbles, *peut-pou-it*, each note on a different pitch, with second note higher. Given infrequently. Call is a nasal *yehnk, yehnk!*, often repeated.
- **BEHAVIOR** In pairs most of the year. In small family groups following breeding. Somewhat shy and secretive. Spends much time foraging on ground. Eats insects and some fruits. Joins mixed foraging flocks with other orioles, jays, and tanagers.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Breeding biology poorly known. Estimated incubation 12–14 days by female. Young altricial; brooded by female; stay in nest estimated 12–14 days, fed by both sexes. 1–2 broods per year.
- **POPULATION** Uncommon and local in the lower Rio Grande Valley of southern Texas. Frequents riparian thickets, scrub, forest undergrowth, and semiarid pine-oak woodlands. Population decline since the 1920s is a combination of habitat loss and related increased cowbird parasitism.



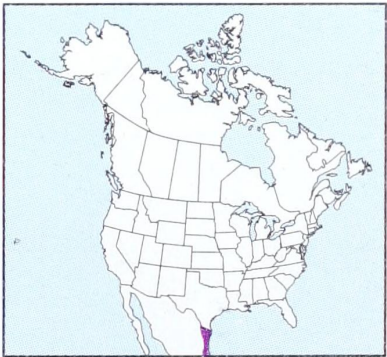
JUVENILE

Similar Birds

No other adult yellow oriole with black hood in its limited US range.



HOODED ORIOLE
Juveniles similar
• curved culmen;
2 white wing bars;
undertail coverts washed with yellow-orange.



Flight Pattern



Swift direct flight with rapid wing beats, low under the canopy.

Nest Identification

Shape 

Location  

- **FEEDERS** Will come to nectar feeders and fruit such as sliced oranges.
- **CONSERVATION** Frequent host to cowbird parasitism. Vulnerable to habitat loss due to land clearing and alteration for agriculture and development.

Woven of fresh green grass • hangs attached by top and side from small vertical terminal branch, 6–14 feet above ground • built by female • 3–5 light blue or grayish white eggs, speckled with browns or purples and scrawled with black lines; oval to long oval, 0.97 x 0.71 inches.

Plumage Sexes similar	Habitat    	Migration Nonmigratory	Weight 0.8 ounce
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DATE _____ TIME _____ LOCATION _____

Family	ICTERIDAE	Species	Icterus galbula	Length	7–8.25 inches	Wingspan	11.25–12.5 inches
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BALTIMORE ORIOLE

The eastern counterpart to Bullock’s Oriole was once thought conspecific with it and called the Northern Oriole. It is the state bird of Maryland. The male is the only bright orange-and-black oriole north of Florida. Some winter along the southeast Atlantic Coast and may find food in backyard feeders and gardens. Juveniles are similar to females but show a yellow-orange wash on the head and breast and grayish to whitish underparts. Juvenile males have more orange.

• **SONG** Disjointed measured 2-note whistled melodic phrases, some with long pauses, *hue-lee, hue-lee, hue-lee*. Call is rich *hue-lee*. Also a series of rattling chatter, *caw-caw-caw-caw-caw*.

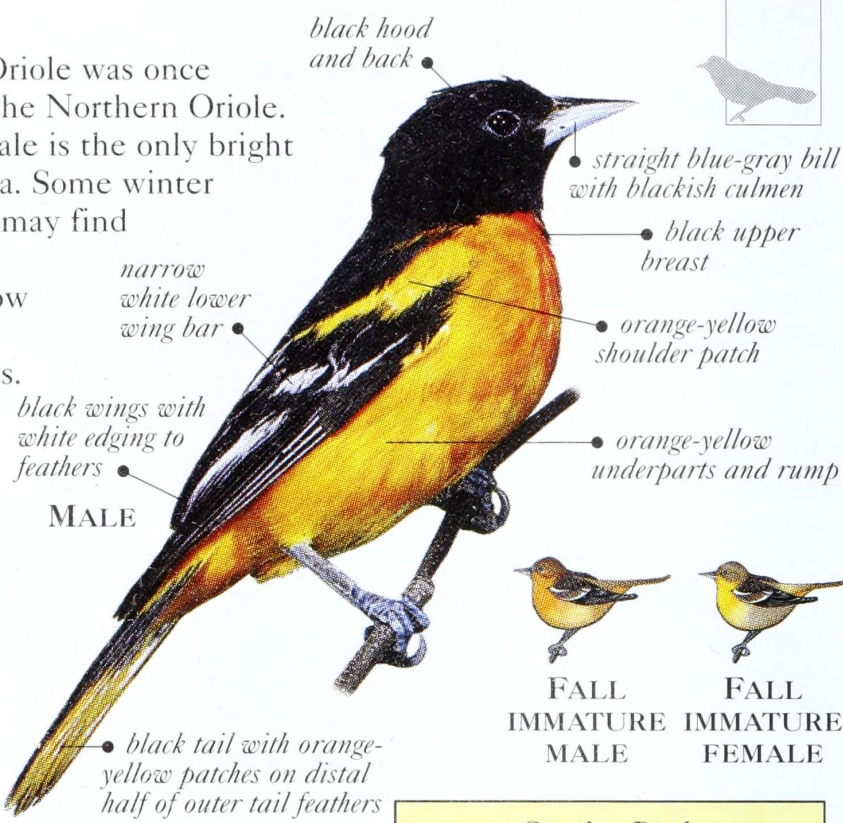
• **BEHAVIOR** Solitary or in pairs in breeding season. In family groups after nesting, although some males remain solitary. May join mixed foraging flocks in winter and migration. Forages in bushes and trees, often high in canopy. Eats insects, caterpillars, berries, and fruits. Sips nectar.

• **BREEDING** Monogamous. Solitary. Displaying male spreads tail and wings, bows to female.

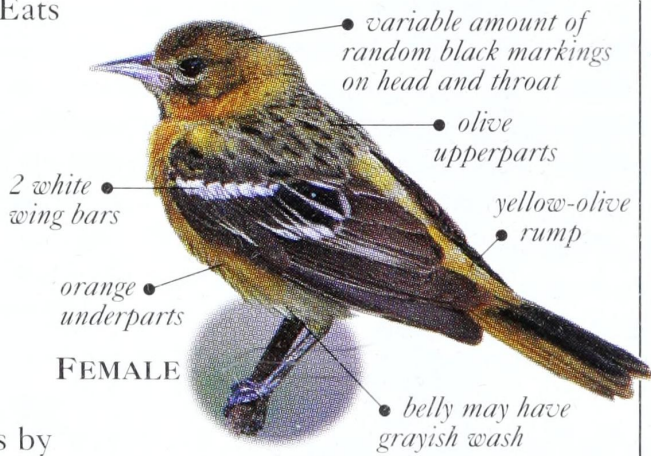
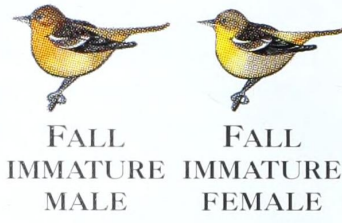
• **NESTING** Incubation 12–14 days by female. Altricial young brooded by female; stay in nest 12–14 days, fed by both sexes. 1 brood per year.

• **POPULATION** Common in deciduous woodlots, riparian woodlands, woodland edges and clearings, and around human habitation. Uncommon in winter in the Southeast. Rare in the West in migration.

• **FEEDERS** Oranges, peanut butter and suet, or nectar.
• **CONSERVATION** Neotropical migrant. Infrequent cowbird host (may eject eggs).



MALE



FEMALE

Similar Birds



♂

BULLOCK’S ORIOLE

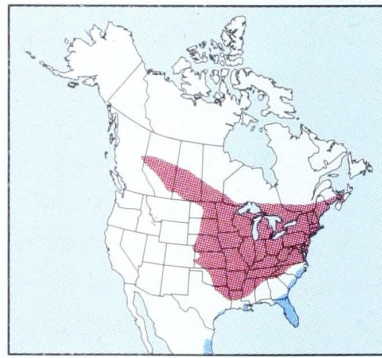
Male has bright orange head, underparts, rump, and outer tail feathers; black crown, nape, eye line, throat, wings, and tail; large white wing patch • female and juvenile female have dark grayish eye line; yellowish head, throat, and breast; grayish white underparts; 2 thin white wing bars; olive-gray crown, nape, and upperparts • first spring male resembles adult female but shows black lores and bib.



♀



♂



Flight Pattern



Swift strong direct flight on rapidly beating wings; orange-yellow in dark tail flashes during flight.

Nest Identification

Shape 

Location  

Intricately woven from plant fibers, horse hair, yarn, cloth, and string • lined with grass, wool, and hair • hanging from end of drooping branch in deciduous tree, rarely in conifer, 25–30 feet above ground (but up to 60 feet) • built by female • 4 grayish white or light blue eggs, blotched and scrawled at large end with blacks and browns; oval to long oval, 0.9 x 0.61 inches.

Plumage	Sexes differ	Habitat	   	Migration	Migratory	Weight	1.2 ounces
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DATE _____ TIME _____ LOCATION _____

Family ICTERIDAE	Species <i>Icterus bullockii</i>	Length 7–8.25 inches	Wingspan 11.25–12.5 inches
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BULLOCK’S ORIOLE

Once considered the same species as the Baltimore Oriole, with which it hybridizes in the Great Plains, this bird was formerly called the Northern Oriole. The bright orange male differs from other orioles in its face pattern and in its large white wing patches that flash in flight.

• **SONG** Measured clear whistled single and double notes with some gruff or scratchy notes. Has rough nasal call of *cheah*, given singly or in series. Also has a loud rattle.

• **BEHAVIOR** Solitary or in pairs during breeding season. In small family groups after nesting. Pairs spend much time together and both will attack predators. Noisy and conspicuous. Frequents river valley and agricultural areas. Forages in trees and bushes. Sips nectar. Eats insects, caterpillars, berries, and fruit.

• **BREEDING** Monogamous; also solitary.

• **NESTING** Incubation 12–14 days by female. Young altricial; brooded by female; stay in nest 12–4 days, fed by both sexes. 1 brood per year.

• **POPULATION** Common in open areas with shade trees and in foothill oak forests. Uncommon in winter in southern California; casual vagrant to the East in migration and winter.

- **FEEDERS** Suet, sliced orange, and nectar water.
- **CONSERVATION** Neotropical migrant. Frequent host to cowbird parasitism. Range increasing near man-made watercourses planted with shrubs and trees.

Flight Pattern



Swift strong direct flight with rapid wing beats.

Nest Identification

Shape 

Location  

Plant fiber, horse hair, string, and bark, with lining of moss, plant down, wool, and hair • hanging from end of branch, often in cottonwood or willow, or in clump of mistletoe, 6–15 feet above ground • built by female, with some help from male • 4–5 light blue or pale gray eggs with dots of brown, gray, or black, scrawled with purplish black line; oval to long oval, 0.93 x 0.63 inches.

Plumage Sexes differ	Habitat    	Migration Migratory	Weight 1.2 ounces
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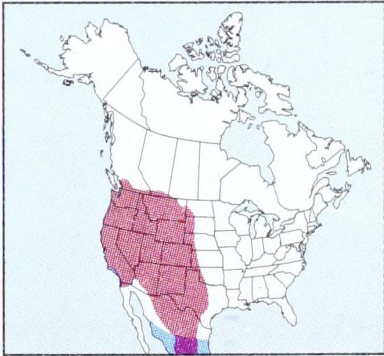
Similar Birds



♂ BALTIMORE ORIOLE Male has hooded appearance due to more extensive black on head and throat; orange upper wing bar; white lower wing bar; orange distal half to outer tail feathers • female shows various degrees of black, olive, and orange on head; lacks eye stripe; orange or orange-washed underparts.



♀



DATE _____ TIME _____ LOCATION _____

Family FRINGILLIDAE	Species <i>Fringilla coelebs</i>	Length 6 inches	Wingspan 9.5 inches
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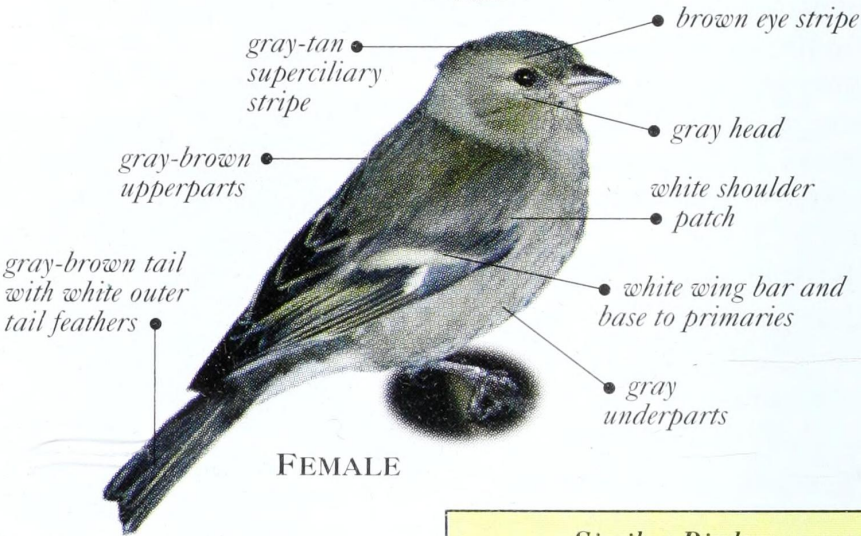
COMMON CHAFFINCH

A sparrow-sized Palearctic species commonly seen in parts of Asia, and perhaps the most common finch in Europe, this bird occasionally visits the northeastern United States and the Maritimes. It is widely scattered as far as North Africa, western Asia, southern Russia, and western Siberia. Outside the breeding season, the male's pinkish back, face, and underparts become brownish. In flight the white bar at the base of the primaries and secondaries and the white lesser coverts contrast with the blackish wings and the blackish tail with its conspicuously flashing white outer tail feathers. Juveniles resemble adult females but are paler overall.

- **SONG** A bold warbling *fyeet, fyeet, lya-lya-vee, chee-yew-keak*. Call is *pink-pink*; has flight call of *cheup*.
- **BEHAVIOR** Solitary or in pairs during nesting season. In groups and small flocks after breeding. Gregarious in winter; often joins mixed-species foraging flocks. Forages for food in trees and bushes. Eats mainly seeds and insects. Found almost anywhere with scattered shrubs and trees, orchards, farmlands, parks, gardens, and suburbs.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 10–16 days by female; male sometimes feeds female on nest. Altricial young brooded by female; remain in nest 11–18 days, tended by both sexes, but female does more.

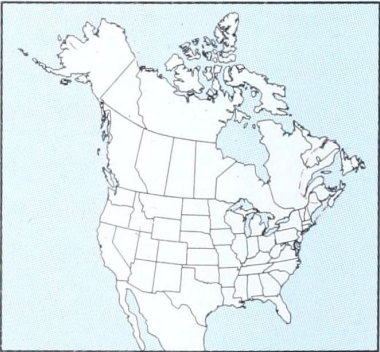


MALE



FEMALE

Similar Birds
None in North America.



Flight Pattern

Somewhat bounding flight with rapid wing beats alternating with brief periods of wings pulled to sides.

Nest Identification

Shape Location

- 1–2 broods per year.
- **FEEDERS** Will come to feeders for seed.
 - **POPULATION** Accidental in the Maritimes and in the US in Massachusetts and Maine. Other reports are thought to be of escaped cage birds.

Grasses, lichen, moss, rootlets, and feathers, held together by spiders' webbing and lined with finer materials • decorated with bits of lichen • in fork of tree or shrub • built by both sexes, but female does more • 3–6 light pink or pale gray eggs, with various brownish red markings; oval to short oval, 0.78 x 0.6 inches.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.8 ounce
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Family FRINGILLIDAE	Species <i>Fringilla montifringilla</i>	Length 5.5–6.25 inches	Wingspan 8.5–10 inches
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BRAMBLING

This Eurasian native occasionally makes visits during migration to the western islands of Alaska. It is casual in the fall and winter across coastal and southern Canada and the northern US to California. Females are similar to males in fresh fall plumage but are duller in color with an olive-brown head and back. Winter males have orange-buff shoulders and chests, a white shoulder bar, and black spotting on the flanks. In flight the long white wing stripe and white rump are distinctive. Juveniles are similar to adult females but are paler with heavier streaking on the back.

• **SONG** Bold grating *dzhweeeeee*. Flight call is nasal *check-check-check*. Call is harsh *tweerk*.

• **BEHAVIOR** Solitary or in pairs while nesting, but in flocks for rest of year; joins mixed foraging flocks in winter. Forages in trees, bushes, and on ground. Eats seeds and insects in summer; seeds in winter. Nests in northern forests with birch trees. Winters in woodlands and weedy fields.

• **BREEDING** Monogamous. Stays in pairs.

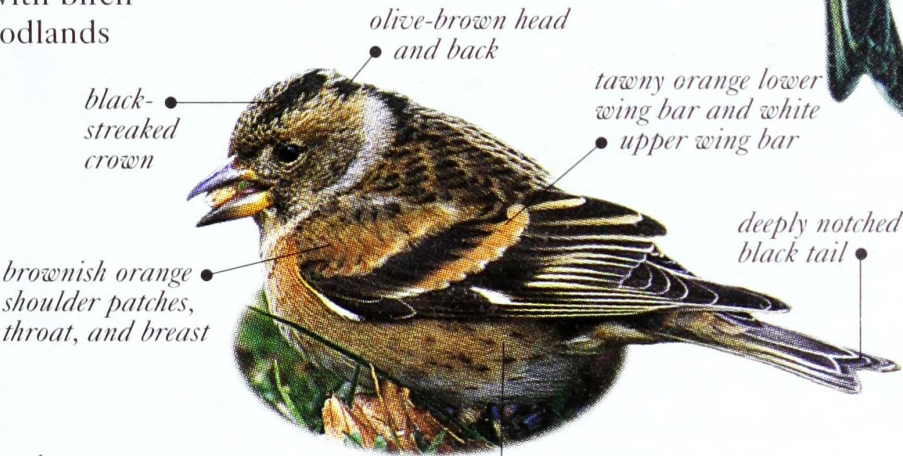
• **NESTING** Incubation 11–12 days by female. Young altricial; brooded by female; stay in nest 11–13 days, fed by both sexes. 1–2 broods per year.

• **POPULATION** Rare to casual except western islands in Bering Sea, where it is fairly common in spring migration; has nested at least once on Attu Island. Scattered fall and winter records from coast to coast in southern Canada and northern US to California.

• **FEEDERS** Will come to feeders for sunflower seeds.



MALE



FEMALE



FALL MALE

Flight Pattern

Somewhat bounding flight with rapid wing beats alternating with brief periods of wings pulled to sides.

Nest Identification

Shape

Location

Grass, hair, birch bark, and moss, held together with spiders' webbing and lined with hair, wool, down, and feathers • adorned with bits of lichen • low in tree and near trunk • built by female • 5–7 pale blue eggs, with pink and reddish markings; subelliptical to oval, 0.76 x 0.57 inches.



Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.8 ounce
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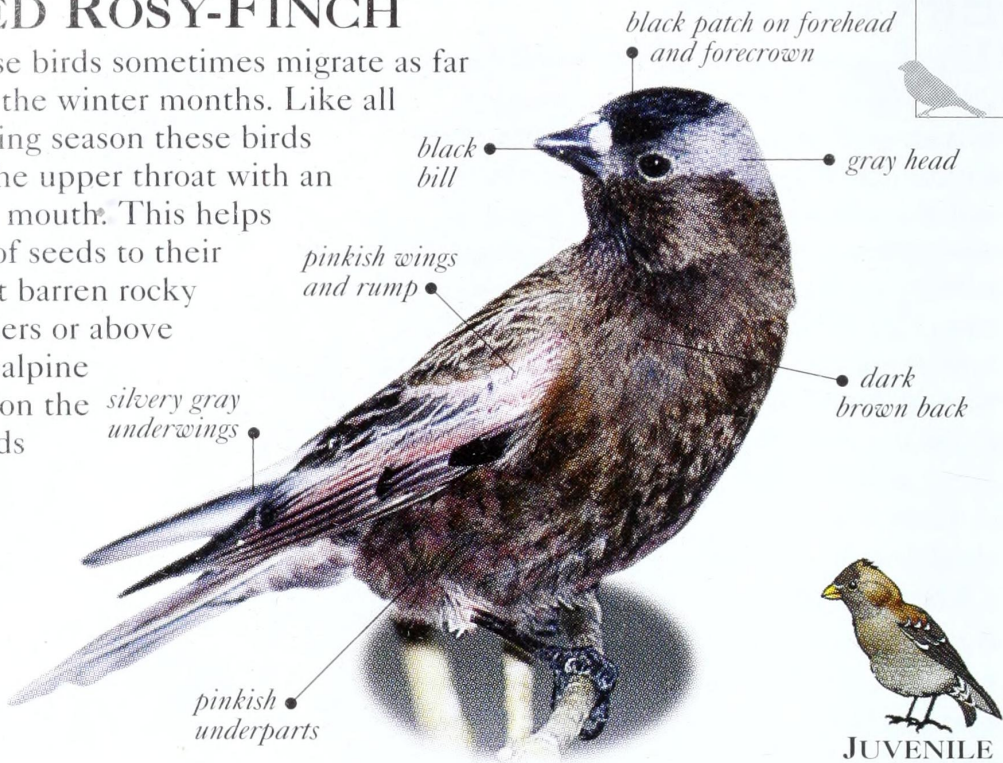
DATE _____ TIME _____ LOCATION _____

Family FRINGILLIDAE	Species <i>Leucosticte tephrocotis</i>	Length 5.75–6 inches	Wingspan 9–9.5 inches
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GRAY-CROWNED ROSY-FINCH

Flying in large flocks, these birds sometimes migrate as far as the Great Plains during the winter months. Like all Rosy-Finches, during nesting season these birds develop a gular pouch in the upper throat with an opening to the floor of the mouth. This helps them carry large amounts of seeds to their young. These birds inhabit barren rocky places nestled among glaciers or above timberline in montane subalpine tundra. Populations living on the Pribilof and Aleutian islands are larger, darker, and show more gray on their faces than continental forms. Females are similar but not as pink on the wings and body as males. The black bills of adults become yellow in winter. Juveniles are gray-brown.

- **SONG** Long series of high chirps, similar to that of a House Sparrow chorus. Has calls of high lisping *chew*, an abrasive *pert*, and a high-pitched *peent*.
- **BEHAVIOR** Gregarious. Lives in flocks and loose colonies all year. Males weakly territorial. Forages in shrubs, grasses, and on ground, hunting in crevices, among rocks, around tundra and snow pools, and along glaciers. Walks rather than hops. Eats mostly seeds but actively takes insects, sometimes hawking them in flight. In many populations, males greatly outnumber females, and competition during courtship can be vigorous. Mountain populations descend to lower elevations in winter.
- **BREEDING** Monogamous. Colonial. Female chooses territory while male follows and defends her from other birds.
- **NESTING** Incubation 12–14 days by female. Young altricial; brooded by female; stay in nest 16–22 days, fed by both sexes. 1 brood in the mountains; 2 broods elsewhere.

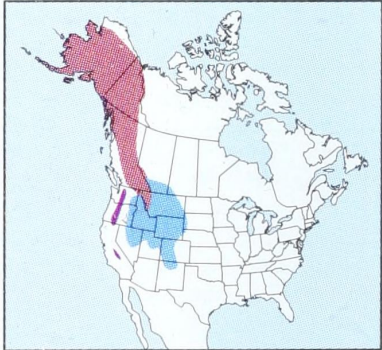


Similar Birds	
	BLACK ROSY-FINCH Dark blackish brown back, head, throat, and breast; rosy pink rump, wing patch, and underparts; black forehead and forecrown; gray head band • only in the West.
	BROWN-CAPPED ROSY-FINCH Dark brown cap; rich brown back, nape, face, throat, and chest; reddish pink underparts, wing patch, rump and uppertail coverts • western range.

Flight Pattern

Somewhat bounding flight with several rapid wing beats alternating with brief period of wings pulled to sides.

• **POPULATION** Common and widespread in Alaska and northwestern Canada. Locally common on alpine tundra over remaining range. Casual in winter to the Midwest and southern California; accidental to Ontario, Quebec, and Maine.



Nest Identification

Shape Location

Grass, rootlets, lichen, and moss, lined with fine grass, plant down, and occasionally feathers • in ridges of rocks and cliffs, sometimes in cave or eave of building • built by female • 4–5 white eggs, occasionally dotted with reddish brown; short pyriform, 0.9 x 0.61 inches.

Plumage Sexes differ	Habitat	Migration Some migrate	Weight Undetermined
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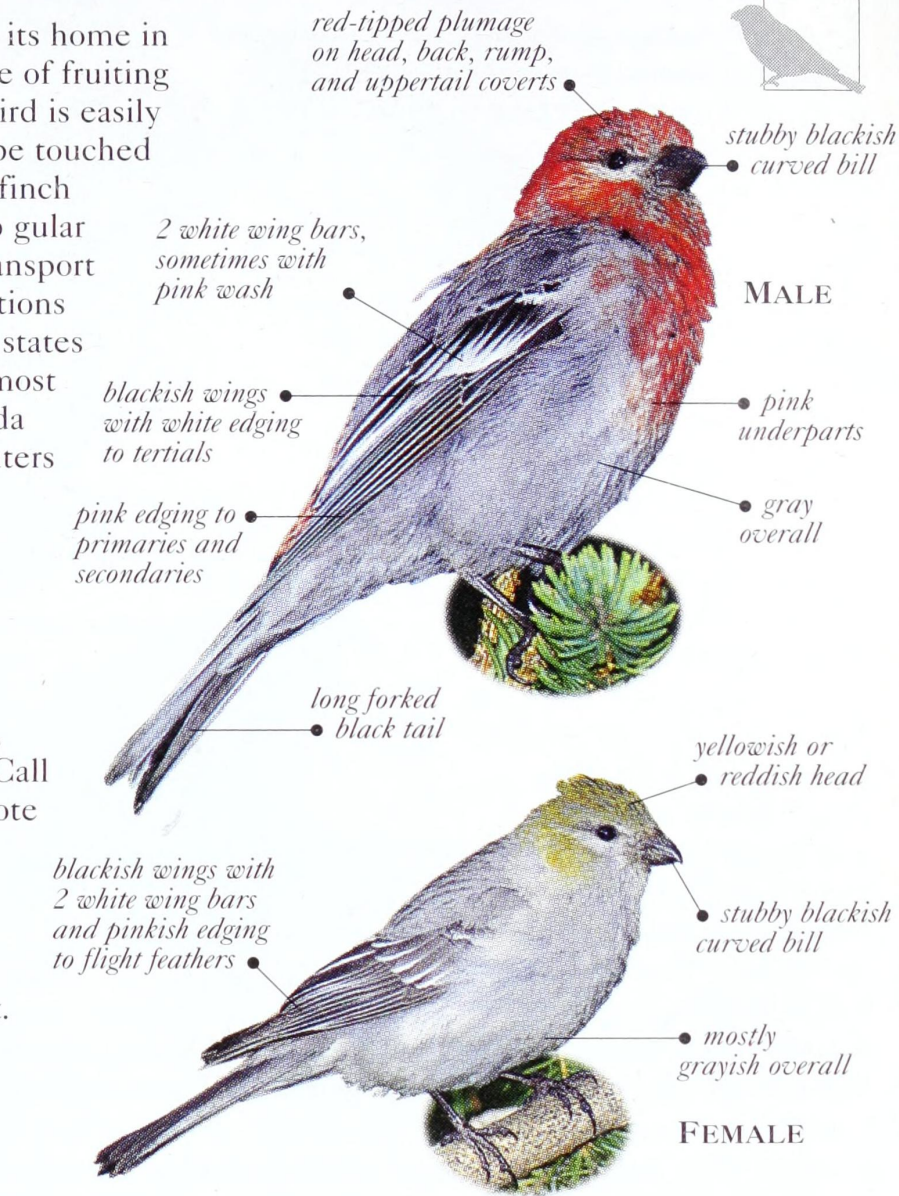
DATE _____ TIME _____ LOCATION _____

Family FRINGILLIDAE	Species <i>Pinicola enucleator</i>	Length 9–9.75 inches	Wingspan 13.75–15 inches
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PINE GROSBEAK

The largest of the grosbeaks makes its home in coniferous forests with an abundance of fruiting shrubs and trees. This stout, tame bird is easily approached and may allow itself to be touched by human hands. Like many in the finch family, the male and female develop gular pouches during nesting season to transport food to nestlings. Except for populations in the mountains of several western states and some in New England forests, most of its range is north of the US-Canada border. Irruptive flights in some winters bring birds into the northeastern states. Juveniles resemble adult females but are duller, with washes of dull yellow on the head, back, and rump instead of the female's yellowish or reddish coloring.

- **SONG** Brief clear musical warble, similar to that of the Purple Finch. Call is whistled *pewi, pewi, pewi*. Alarm note is *chee-uli*.
- **BEHAVIOR** Solitary or in pairs during nesting season. Tame. Gregarious. Forms large flocks soon after juveniles become independent. Forages on ground and in trees. Eats mainly seeds; also takes buds, some fruits, and insects. Male feeds female as part of courtship ritual. Mostly sedentary, not often moving south of southernmost breeding ranges in winter.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 13–15 days by female. Young altricial; brooded by female; stay in nest 13–20 days, fed by both sexes. 1 brood per year.
- **POPULATION** Fairly common in open coniferous forests and along edge of forest. Winters in mixed coniferous-deciduous woodlands, deciduous forests, second growth, and in shade trees in villages and in suburbs.



RUSSET VARIANT

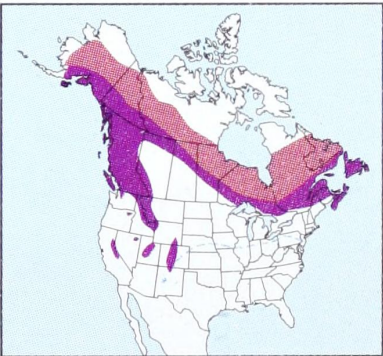
Flight Pattern

Shallow undulations with series of rapid wing beats alternating with brief periods of wings drawn to sides.

Nest Identification

Shape	Location
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- **FEEDERS** Seeds.
- **CONSERVATION** Vulnerable to loss of habitat due to logging operations.



Twigs, weeds, and rootlets, with lining of soft grass, rootlets, moss, and lichen

- on limb of tree or bush, usually 2–25 feet above ground
- built by female
- 2–5 blue-green eggs with dots of black, purple, and brown; oval to long oval, 1.0 x 0.72 inches.

Plumage Sexes differ	Habitat	Migration Northern birds migrate	Weight 2.0 ounces
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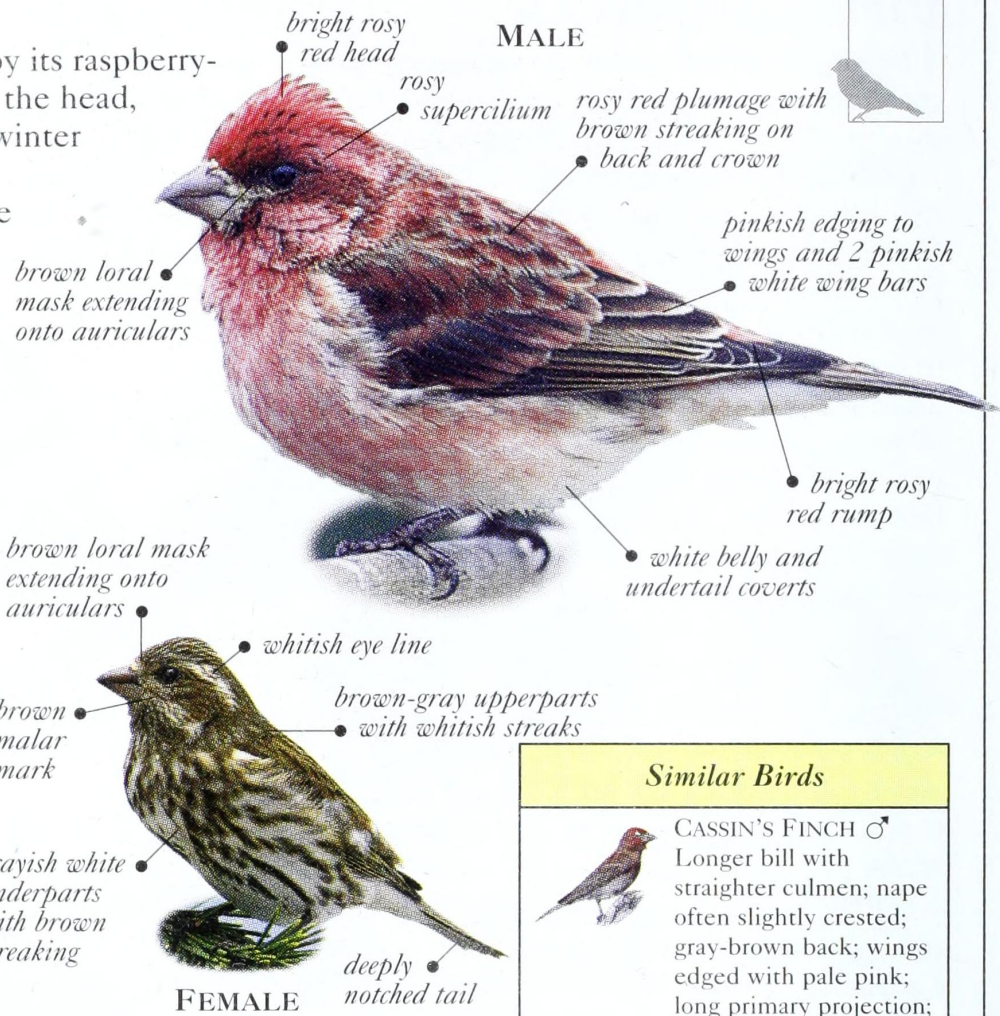
DATE _____ TIME _____ LOCATION _____

Family	FRINGILLIDAE	Species	<i>Carpodacus purpureus</i>	Length	5.5–6.25 inches	Wingspan	9.25–10.5 inches
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PURPLE FINCH

The male is easy to identify by its raspberry-colored plumage, brightest on the head, rump, and chest. Foraging in winter flocks, these birds depend on feeders when food supplies are scarce. Juveniles are similar to adult females; both have two white wing bars.

- **SONG** Rapid high-pitched rising and falling warble. Late winter/early spring males may sing in chorus. Call is *chur-lee*. Flight notes are sharp *tuck* or *pit*.
- **BEHAVIOR** Solitary or in pairs in nesting season. Male sings from exposed perch. Gregarious, tame. In flocks after breeding; joins mixed-species foraging flocks in winter with siskins and goldfinches. Forages in trees and hopping on ground. Eats seeds; some fruits, insects, and caterpillars in summer.
- **BREEDING** Monogamous. Male displays by dancing around female and vigorously flapping his wings until he ascends to a foot above the ground.
- **NESTING** Incubation about 13 days by female. Altricial young brooded by female; stay in nest 14 days, fed by both sexes. 1-2 broods per year.
- **POPULATION** Fairly common in open coniferous and mixed coniferous-deciduous forests, in forest edge, and in suburbs; in Pacific states, in oak canyons and lower mountain slopes. Declining in the East.
- **FEEDERS** Millet and sunflower seeds.



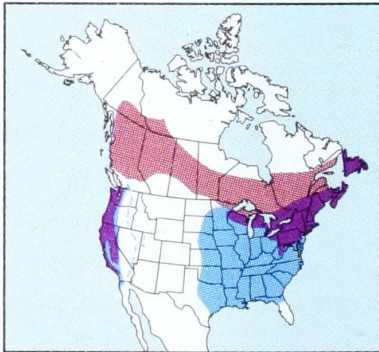
Similar Birds



CASSIN'S FINCH ♂
Longer bill with straighter culmen; nape often slightly crested; gray-brown back; wings edged with pale pink; long primary projection; streaked undertail coverts; distinct streaks on sides and flanks • western range.



HOUSE FINCH ♂
Slender not chunky; less pointed bill with decurved culmen; indistinct facial pattern; brighter red on crown, rump, throat, and breast; dusky streaked underparts; squared tail.

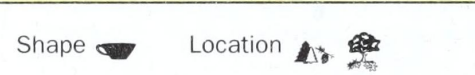


Flight Pattern



Swift bounding flight with rapid wing beats alternating with brief periods of wings pulled to body.

Nest Identification



- **CONSERVATION** Uncommon cowbird host. Vulnerable to habitat loss due to logging. Decrease in New England due to competition with House Sparrow; recent declines in East suggest same with House Finch.

Twigs, weeds, rootlets, strips of bark, and string, with lining of moss, soft grasses, moss, and hair • on branch or in fork of tree, 6–40 feet above ground • built by female • 3–5 pale green-blue eggs, marked with black and brown; oval to short oval, 0.8 x 0.57 inches.

Plumage	Sexes differ	Habitat		Migration	Northern birds migrate	Weight	1.2 ounces
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Family FRINGILLIDAE	Species <i>Carpodacus mexicanus</i>	Length 6 inches	Wingspan 9.75 inches
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HOUSE FINCH

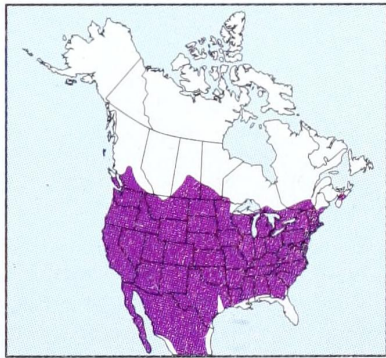
Originally confined to the West, this finch was called a Linnet and introduced as a cage bird on Long Island, New York, in the 1940s. It became abundant in the East, surpassing the House Sparrow. Today, it is among the most widely distributed songbird species in North America. It often feeds with the Purple Finch, especially in winter. Some male variants are orange or yellow instead of red. Juveniles resemble adult females.

- **SONG** Varied rich high-pitched scratchy warble composed chiefly of 3-note phrases; many end with rising inflections. Both sexes sing, but male's song is longer, more complex, and more frequent. Call is nasal *chee* or *chee-wheet*; in flight a sharp nasal *nyee-ah*.
- **BEHAVIOR** Solitary or in pairs during nesting season. Gregarious. Forms small family groups when young become independent. Larger foraging flocks in winter may join with other finches. Actively forages on ground, in fields, and in suburban areas. Eats mostly seeds but in summer takes insects and fruits. Drinks maple sap. Males are conspicuous and sing often. Studies indicate that the redder the male's plumage, the more desirable he is to females.
- **BREEDING** Monogamous. Solitary.
- **NESTING** Incubation 12–14 days by female. Altricial young brooded by female; stay in nest 11–19 days, fed by both sexes. 1–3 broods per year.
- **POPULATION** Abundant over much of North America in a wide variety of habitats, from arid scrub, wooded canyons, cultivated fields, and open woodlands to suburban yards and urban areas.



Similar Birds

- PURPLE FINCH** ♂
Chunkier; notched tail; distinct rosy eyebrow and submustachial stripe; white crissum lacks streaking; crown does not contrast with face and nape • male shows raspberry-red on head, breast, and rump.
- CASSIN'S FINCH** ♂
Larger; notched tail; long straight bill; nape often slightly crested; bright red crown; pale pink-edged wings; streaked undertail coverts; distinct streaking on sides and flanks • western range.



Flight Pattern

Swift somewhat bounding flight with rapid wing beats alternating with brief periods of wings pulled to sides.

Nest Identification

Shape

Location

- **FEEDERS** Thistle, millet, sunflower, and other seeds.
- **CONSERVATION** Rare cowbird host in the West; fairly common host in the East.

Twigs, grass, leaves, rootlets, bits of debris, and feathers • in tree hollow, cactus, on ground, under eaves of building, in bird boxes, abandoned nests, shrub, tree, etc. • built by female • 2–6 light blue eggs, spotted with lilac and black, often concentrated at larger end; oval to long oval, 0.8 x 0.57 inches.

Plumage Sexes differ	Habitat	Migration Some migrate	Weight 0.7 ounce
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DATE _____ TIME _____ LOCATION _____

Family	FRINGILLIDAE	Species	<i>Loxia curvirostra</i>	Length	5.5–6.5 inches	Wingspan	10–10.75 inches
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RED CROSSBILL

Crossbills take their name from the overlapping tips of the upper and lower mandibles. A resident of evergreen forests, they insert the crossed mandibles into conifer cones, forcing the scales apart while the tongue scoops the seed into the mouth. Nestlings have straight mandibles that cross gradually about three weeks out of the nest. Having abundant food year-round, this species begins nesting as early as January. Juveniles have weakly crossed mandibles, gray-olive upperparts heavily streaked dark brown, dark brown-streaked whitish underparts with yellowish wash, and buff-yellow rump. Subspecies of this bird vary in size, bill size, and vocalizations and may represent up to nine separate species.

• **SONG** Series of 2-note phrases followed by trilled warble, *jitt, jitt, jitt, jitt, jiaa-jiaa-jiaaaaa*. Calls vary among subspecies.

• **BEHAVIOR** In pairs during breeding season. Gregarious in small to large flocks most of year. Forages primarily in conifers, some on ground. Eats mostly seeds; also insects and caterpillars. Clings under branches and cones chickadee-like or crawls across limbs and cones like a small parrot, using bill and feet. Eats bits of mortar and is attracted to salt licks and to winter salt on the sides of roadways. Individuals and flocks fly high and are generally detected by their flight calls.

• **BREEDING** Monogamous. Solitary. Displaying male flies above female, vibrating wings and delivering flight song as he soars in circles overhead.

• **NESTING** Incubation 12–18 days by female. Altricial young brooded by female; stay in nest 15–20 days, fed by both sexes. 1–2 broods per year.

• **POPULATION** Fairly common in conifers and mixed forests.

Wanderers, often depend on cone crop. Irruptive flights to Gulf states some winters.

• **FEEDERS** Sunflower seeds.

• **CONSERVATION** Vulnerable to habitat loss due to logging operations.

Flight Pattern



Swift bounding flights, sometimes high above ground, on rapidly beating wings with brief periods of wings pulled to sides.

Nest Identification

Shape  Location 

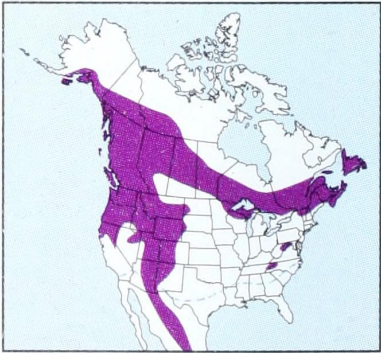
Twigs, pieces of bark, grass, and rootlets, with lining of finer grasses, feathers, fur, hair, and moss • on tree branch far out from trunk, 6–40 feet above ground • built by female • 3–4 light green or blue eggs spotted with browns and lilacs; oval to long oval, 0.8 x 0.58 inches.



Similar Birds

 WHITE-WINGED CROSSBILL
White wing bars in all seasons • male pinkish red overall • female has dusky mottled olive-yellow upperparts; yellow rump; grayish underparts with yellowish wash.





Plumage	Sexes differ	Habitat		Migration	Nonmigratory	Weight	1.4 ounces
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DATE _____ TIME _____ LOCATION _____

Family FRINGILLIDAE

Species *Loxia leucoptera*

Length 6–6.75 inches

Wingspan 9.5–10.5 inches

WHITE-WINGED CROSSBILL

Frequenting a northern range, White-winged Crossbills rarely are observed in large numbers in the US, except during food shortages and periods of overpopulation. Males are bright pink with a dusky band on the lower back, but plumage pales during winter months. Juveniles resemble adult females but are buffy tan overall with heavy brown streaking.

• **SONG** Vigorous musical warbles and chatters, *sweet, sweet, sweet*, on different pitches and often issued during display flight on hovering wings. Call is rapid harsh repetitive series of *chif-chif-chif* notes and plaintive *peet*.

• **BEHAVIOR** Gregarious. Tame.

In pairs during nesting season from early winter to spring. Forages in small flocks most of year. Principal diet is conifer seeds; also eats seeds from other trees, weeds, grasses, and sunflowers. Takes some insects. Attracted to salt licks and salt on surfaces of winter highways. Like Red Crossbill, uses mandible tips to spread cone scales while removing seed with tongue. Climbs over branches parrotlike using feet and bill.

• **BREEDING** Monogamous. Solitary.

• **NESTING** Breeding biology poorly known. Incubation 12–14 days by female. Altricial young brooded by female; stay in nest estimated 15–20 days. Both sexes regurgitate milky seed pulp mixture to nestlings. 1 brood per year.

• **POPULATION** Fairly common but erratic in conifer and mixed coniferous-deciduous forests. Irregular wanderer; irruptive southward migration dependent on cone seed crops.

Flight Pattern



Swift bounding flight with rapidly beating wings alternating with brief periods of wings pulled to sides.

Nest Identification

Shape  Location 

Western populations expanding range southward.

• **FEEDERS** Sunflower seeds.

• **CONSERVATION**

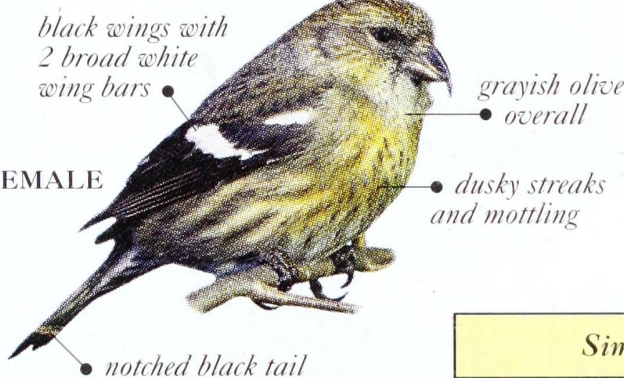
Vulnerable to habitat loss due to logging operations. Heavy mortality in winter due to traffic on salted roadways.

Grass, bark, lichen, moss, and hair • lined with twigs and weeds • on horizontal tree limb far out from trunk, 3–70 feet above ground • built by female • 3–5 whitish to pale blue-green eggs with brown and lavender spotting at larger end; oval to long oval, 0.86 x 0.62 inches.

MALE



FEMALE



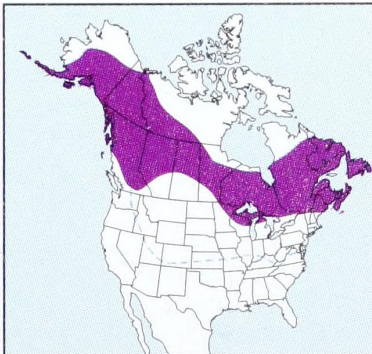
JUVENILE



Similar Birds



RED CROSSBILL
Male brick-red overall; dark brownish black wings without wing bars • female has dusky yellow upperparts with dusky mottling; yellow rump; brownish black wings lack wing bars; dull yellow underparts lack streaking or mottling.



Plumage Sexes differ

Habitat   

Migration Nonmigratory

Weight 1.0 ounce

DATE _____ TIME _____ LOCATION _____

Family FRINGILLIDAE	Species <i>Carduelis flammea</i>	Length 5–5.5 inches	Wingspan 8.25–9 inches
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COMMON REDPOLL

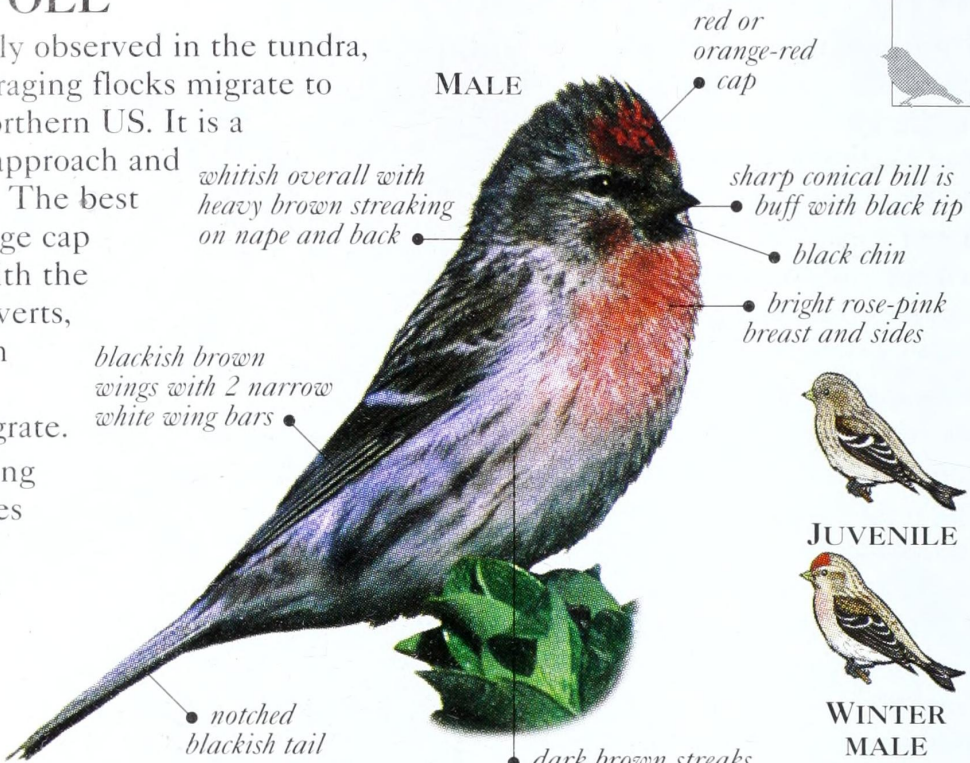
This finch is most commonly observed in the tundra, but during some winters, foraging flocks migrate to southern Canada and the northern US. It is a tame bird that allows close approach and does not fight over territory. The best field mark is the red to orange cap and black chin combined with the streaked rump, uppertail coverts, sides, and crissum. Although primarily nonmigratory, the northern populations do migrate.

• **SONG** Trills, then bubbling twittering including *chit* notes of flight song, a rattling *chit-chit-chit-chit*. Call is *swee-ee-et*.

• **BEHAVIOR** Gregarious. Tame. Lives in flocks all year. Loosely territorial or nonterritorial, with breeding pairs nesting close to one another. Forages chickadee-like, clinging to branch tips and weed tops for seeds, mainly from birches, alders, willows, and weeds. Also forages on ground for weed and grass seeds. Eats insects during summer.

• **BREEDING** Monogamous. Solitary to loose colonial.

• **NESTING** Incubation 10–11 days by female. Young altricial; brooded by female; stay in nest 9–14 days, fed mostly by female, but sometimes by male and by additional male helpers. 1–2-broods per year.



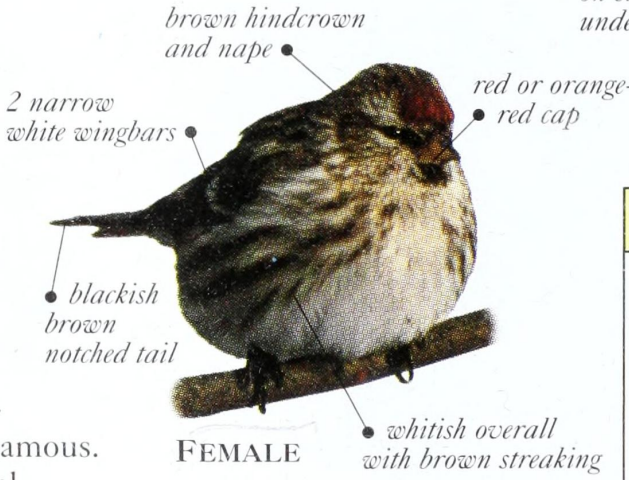
JUVENILE



WINTER MALE

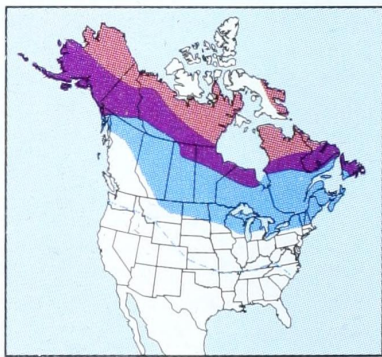


WINTER FEMALE



Similar Birds

 **HOARY REDPOLL**
Paler frostier body; slightly smaller bill; faint, minimal, or absent streaking on rump, sides, flanks, and crissum • male's breast is generally a paler pink and is restricted to sides, but pink may be absent in winter plumage.



Flight Pattern



Moves relentlessly in undulating flight, with series of rapid wing beats alternating with brief periods of wings pulled to sides.

Nest Identification

Shape   Location  

• **POPULATION** Fairly common, breeding in tundra scrub, scrubby areas, and subarctic forest. Winters in brushy areas. Irregular in the US south of Canada border.

• **FEEDERS** Thistle, millet, sunflower seeds.

Moss, feathers, plant material, and animal fur • lined with twigs and grass • generally hidden in dense low shrubs, occasionally in crevices in rocks or rocky outcroppings • built by female • 4–7 pale green or blue-green eggs, with purplish to reddish brown spots concentrated at larger end; oval to short oval, 0.7 x 0.5 inches.

Plumage Sexes differ	Habitat  	Migration Nonmigratory	Weight 0.5 ounce
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DATE _____ TIME _____ LOCATION _____

DATE _____ TIME _____ LOCATION _____

Family FRINGILLIDAE	Species <i>Carduelis spinus</i>	Length 4.75–5 inches	Wingspan 8.5–9 inches
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EURASIAN SISKIN

Vagrants of this widespread Eurasian species occasionally cross the Bering Strait to Attu Island in the Aleutians, and in the East they have been observed in southern Ontario, Massachusetts, and New Jersey. The male's black crown and chin, greenish upperparts, and yellow rump and underparts clearly distinguish this small bird from its North American cousin, the Pine Siskin, as well as any other North American finch species. In flight the yellow rump and long yellow stripe at the base of the blackish flight feathers are conspicuous. Juveniles are similar to females but have more heavily streaked underparts that are not washed with yellow.

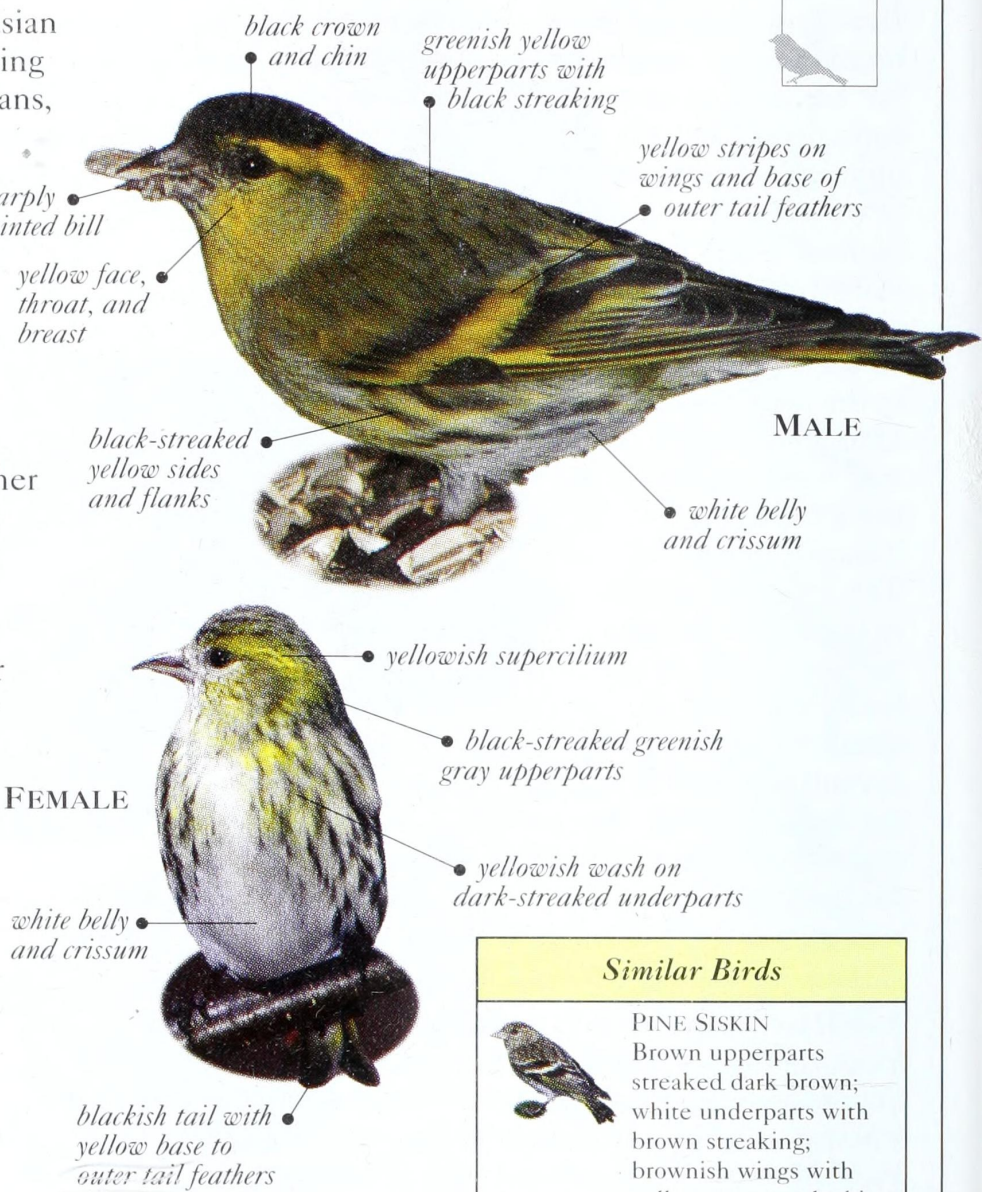
- **SONG** Pleasant rapid warbling twittering of *tsee-vee, tsee-vee, tsee-vee*. Call is bold *tee-ee-lee-tee* and single metallic *tsu*.
- **BEHAVIOR** Solitary or in pairs in nesting season. Small family groups after breeding. Tame and gregarious. Forms flocks in winter; often joins other finches. Forages in trees, brush, weedy fields, and on ground for seeds, some insects. Sometimes hangs upside down when pulling seeds from conifer cones. Nomadic; follows food supply.
- **BREEDING** Monogamous. Male displays by singing, ascending, and flying around female in circles.
- **NESTING** Incubation 11–14 days by female. Altricial young brooded by female; stay in nest 12–15 days, fed by both sexes. 2 broods per year.

Flight Pattern

Swift and very bounding flight with rapid wing beats alternating with brief periods of wings pulled to sides.

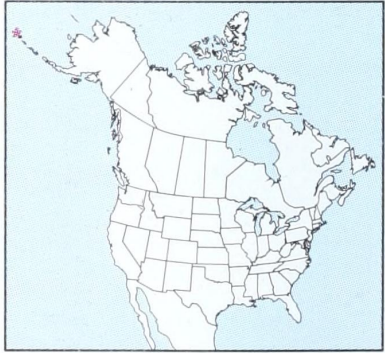
Nest Identification

Shape Location



Similar Birds

PINE SISKIN
Brown upperparts streaked dark brown; white underparts with brown streaking; brownish wings with yellow upper and white lower wing bar; yellow at base of primaries and secondaries forms wing stripe in flight; notched blackish tail with yellow base to outer feathers.



Twigs, moss, grass, and wool • lined with hair, wool, down, and rootlets • high in tree near end of limb • built by female, with some help from male • 3–5 glossy light blue eggs, heavily marked with reddish browns, purples, and pinks; subelliptical, 0.64 x 0.48 inches.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.5 ounce
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Family FRINGILLIDAE	Species <i>Carduelis pinus</i>	Length 4.5–5.25 inches	Wingspan 8.5–9 inches
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PINE SISKIN

In fall and winter this is a common visitor to northern forests, where it forages in flocks that may include several thousand birds. When food is scarce these daytime migrants may travel as far south as Florida and central Mexico, flying in tightly formed flocks. In flight the yellow wing stripe at the base of the flight feathers and the yellow base to the outer tail feathers are conspicuous. Females are similar to males but with more washed-out yellow plumage. Juveniles resemble females but show a yellowish wash overall.

- **SONG** Husky canary-like twittering warble, rising and falling in pitch and interspersed with a rapid ascending ZZZzzzzzzzzzzzzrree!, sounding like the equivalent of a bird with a chainsaw. Call is rising tee-ee. Flight note is hoarse descending chee.
- **BEHAVIOR** Tame, may allow close approach. Gregarious. In small groups or flocks year-round. Weakly territorial or not at all, with pairs nesting close to one another, often in the same tree. Forages on ground and in trees for seeds from alders, birches, spruce, and other trees. Also eats thistle seeds and weeds, some insects in summer. Nomadic in fall and winter. Attracted to salt licks and salt-treated winter highways. Feeds on sap at drill wells created by sapsuckers. Mountain populations descent to lower elevations prior to winter onset.
- **BREEDING** Monogamous. Semicolonial.
- **NESTING** Incubation 13 days by female. Young altricial; brooded by female; stay in nest 14–15 days, fed by both sexes. 2 broods per year.
- **POPULATION** Widespread and abundant in coniferous and mixed conifer-deciduous forests, in woodlands, parks, weedy fields, and near human habitation. Erratic irruptions in some winters bring large numbers far south of normal wintering range.



Similar Birds



HOUSE FINCH ♀
Stubbier thicker bill; longer tail with squarish tip; 2 narrow white wing bars; lacks yellow at base of tail, primaries, and secondaries.



COMMON REDPOLL ♀
Red cap; black chin; 2 narrow white wing bars; lacks yellow plumage on wings and tail.

Flight Pattern

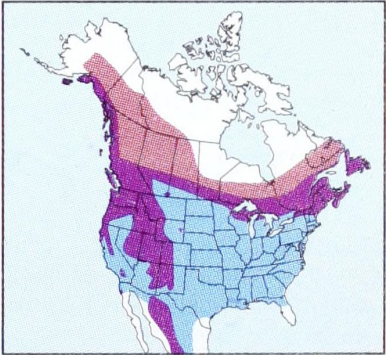


Flight is high and swift in compact flocks with long undulating sweeps.

Nest Identification

Shape  Location 

- **FEEDERS** Mixed seed, thistle, and black oil sunflower seed. Also will bathe and drink in birdbaths.
- **CONSERVATION** Fatalities high in winter; birds attracted to salt on roads become reluctant to fly.



Bark, moss, feathers, and animal fur • lined with grass and twigs • usually hidden in conifer, placed far out from trunk • 10–50 feet above ground • built by female • 3–5 pale greenish blue eggs, with brown and black spots concentrated on larger end; short oval to short subelliptical, 0.7 x 0.5 inches.

Plumage Sexes similar	Habitat  	Migration Migratory	Weight 0.5 ounce
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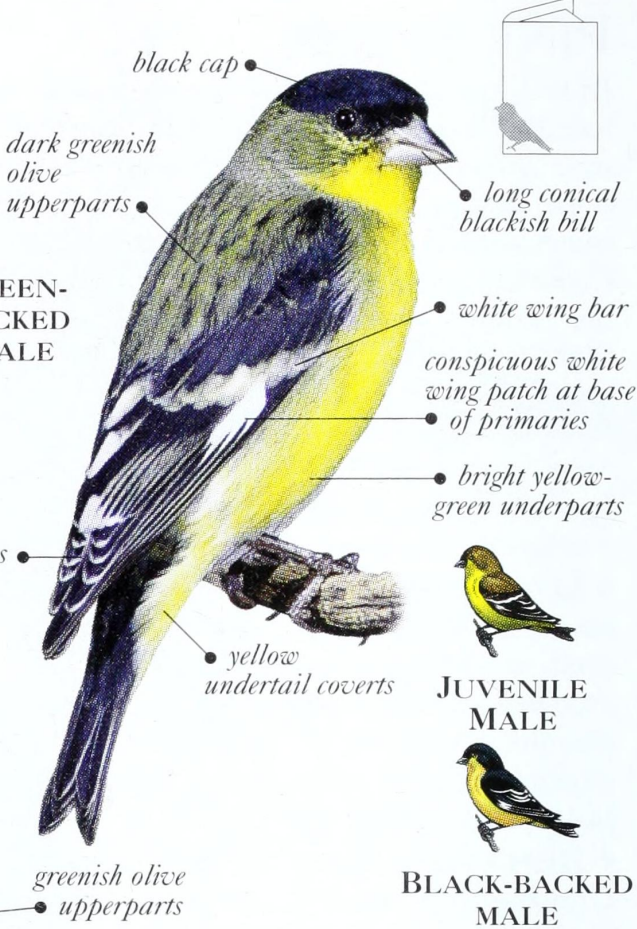
DATE _____ TIME _____ LOCATION _____

Family	FRINGILLIDAE	Species	<i>Carduelis psaltria</i>	Length	4.5 inches	Wingspan	8 inches
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LESSER GOLDFINCH

Smaller than the American Goldfinch, this bird is welcome in the Southwest because of its pleasant song and the amount of weed seeds it consumes. It can be distinguished from other goldfinches by the white patch at the base of the primaries, which shows as a white wing stripe in flight. All adult males have a black crown, but the color of the back varies with range: black-backed birds in the East and green-backed birds in the West. Juvenile males are similar to females but have a black forehead and black streaking on the crown.

- **SONG** Complex warbling twittering exuberant series of *swee* notes. Call is mewing *tee-yee* and drawn-out nasal *zweeir*.
- **BEHAVIOR** In pairs or small flocks. Gregarious. Forages in flocks in brush, shrubs, and weedy fields. Frequents birdbaths and faucets. Eats weed seeds, other seeds, and insects.
- **BREEDING** Monogamous. Pairs stay together in winter; may mate for life. Male displays with singing flight song; feeds female during courtship.
- **NESTING** Late nester. Incubation 12 days by female, fed by male. Altricial young brooded by female; stay in nest 11–15 days. Both sexes feed regurgitated milky seed pulp. 1–2 broods per year.
- **POPULATION** Common in open habitats with scattered trees, brush fields, and woodland borders, especially near water and near human habitation. Casual in the Great Plains. Accidental in the East.



Similar Birds

♂

♀

AMERICAN GOLDFINCH
 Larger; stubby pinkish bill; whitish undertail coverts; blackish wings with 2 whitish to buff wing bars and white edging to tertials and secondaries; lacks white patch across base of primaries • in winter has brownish upperparts; grayish white underparts with buff wash on flanks.

Flight Pattern

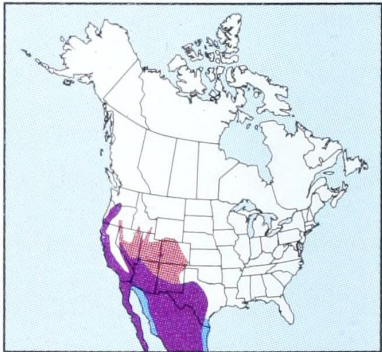
High bouncy swift flight with rapid wing beats alternating with brief periods of wings pulled to sides.

Nest Identification

Shape

Location

Plant fibers, grasses, and bark pieces, with lining of feathers, cotton, and plant down • usually cradled across limb of tree or bush or occasionally set in tall weeds • 2–30 feet above ground • built by female • 3–6 light blue eggs, usually unmarked; ovate to rounded ovate, 0.61 x 0.45 inches.



Plumage	Sexes differ	Habitat		Migration	Northern birds migrate	Weight	0.3 ounce
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Family FRINGILLIDAE	Species <i>Carduelis tristis</i>	Length 5 inches	Wingspan 8.75–9 inches
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AMERICAN GOLDFINCH

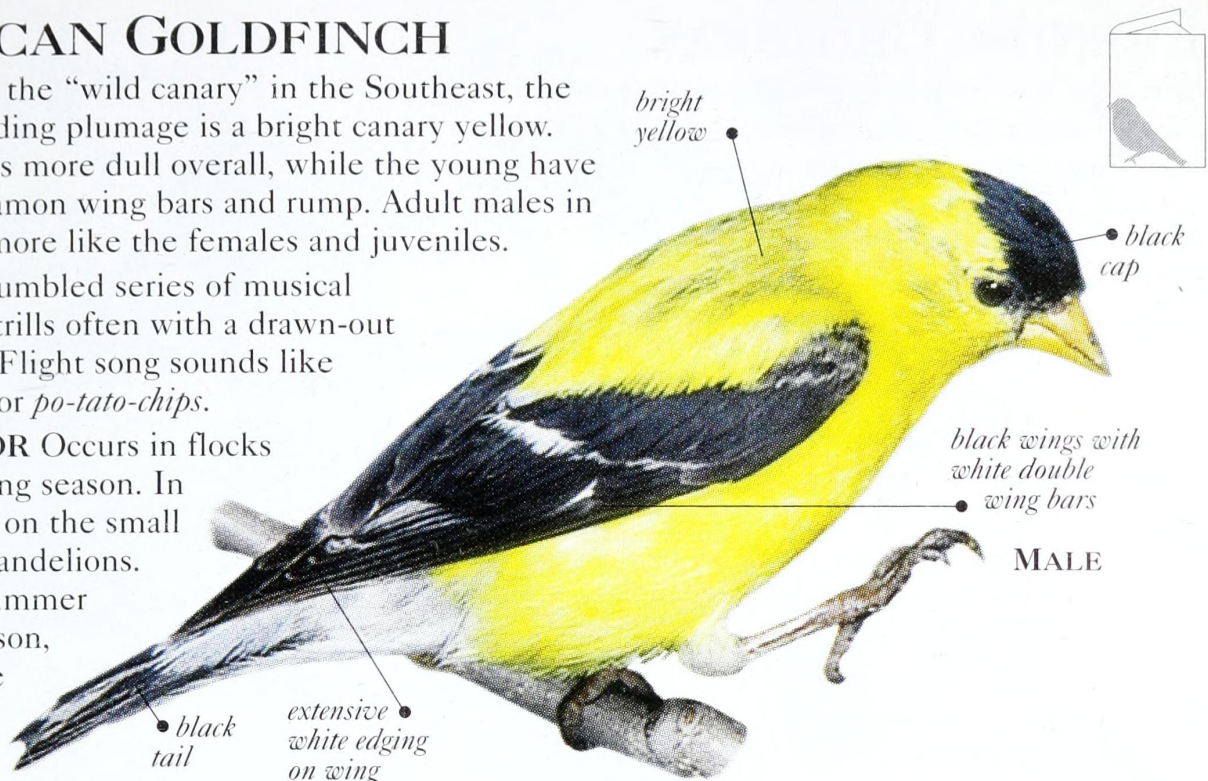
Often called the “wild canary” in the Southeast, the male in breeding plumage is a bright canary yellow. The female is more dull overall, while the young have whitish cinnamon wing bars and rump. Adult males in winter look more like the females and juveniles.

• **SONG** A jumbled series of musical warbles and trills often with a drawn-out *baybeee* note. Flight song sounds like *per-chick-oree* or *po-tato-chips*.

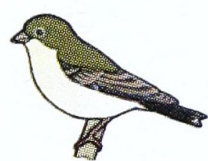
• **BEHAVIOR** Occurs in flocks in nonbreeding season. In spring, feeds on the small seeds from dandelions. In the late summer breeding season, males engage in aerial displays of exaggerated roller coaster-like flights across the sky, singing *po-tato-chip* with each downward glide.

• **BREEDING** Monogamous. Among the very latest songbirds to nest each year. Territorial defense and mate selection begins in late summer and continues into early fall.

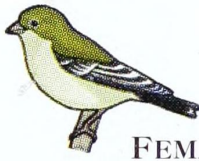
• **NESTING** Incubation 10–12 days by female. Young stay in nest



MALE



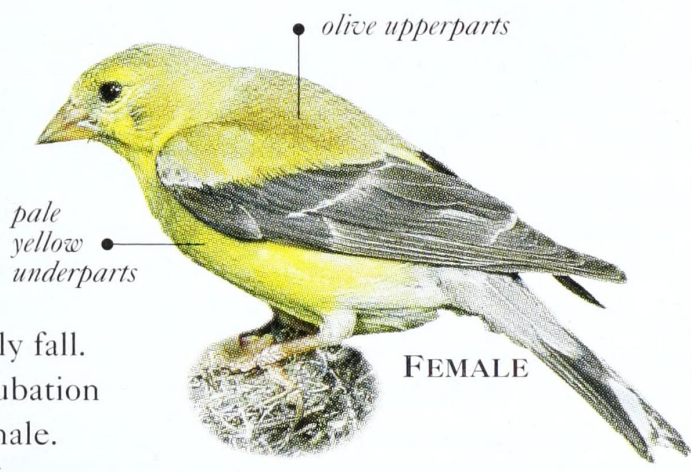
JUVENILE



FEMALE WINTER PLUMAGE



MALE WINTER PLUMAGE



FEMALE

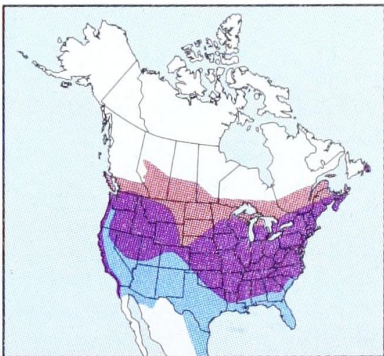
Similar Birds	
	YELLOW WARBLER ♂ Lacks wing bars and black wing and tail • breeds throughout much of the North, Southwest.
	LESSER GOLDFINCH ♂ Yellow undertail coverts • ranges in the Northwest, Rockies, and much of the Southwest.

Flight Pattern	
Undulating, roller coaster-like flight with several rapid wing beats and a pause.	

11–17 days, fed by both sexes. 1–2 broods per year.

• **POPULATION** Common. Declining in eastern North America; stable in the West.

• **FEEDERS** Black (oil) sunflower seeds, thistle.



Nest Identification	
Shape	Location

Pliable vegetation lined with plant down • caterpillar webbing and spider silk often used to bind outer rim • usually along the edge of an open area • built by female • extremely well woven • 4–6 pale blue or bluish white eggs; subelliptical to oval, 0.6 inch long.

Plumage Sexes differ	Habitat	Migration Migratory	Weight 0.5 ounce
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DATE _____ TIME _____ LOCATION _____

Family	FRINGILLIDAE	Species	<i>Coccothraustes vespertinus</i>	Length	7.75–8.5 inches	Wingspan	13–13.75 inches
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EVENING GROSBEAK

Since the late 19th century the breeding range of this chunky bird has expanded eastward, supported by seed from new trees and by increased feeding stations. Fall migratory patterns are erratic; birds only leave breeding ranges when food supplies fail or populations become sizeable. Flocks may arrive in a region one winter and not return the next. In flight the short notched tail and large wing patches are distinctive.

• **SONG** Series of clipped warbled phrases, ending in shrill whistled note. Calls are loud piercing *clee-ip*, *peer* and *chirp*. Flocks sound like chorus of amplified House Sparrows.

• **BEHAVIOR** Gregarious. Tame. Noisy. In groups and flocks during breeding season; pairs nest closely. Eats insects, including spruce budworm, while nesting; also eats buds, sap, and seeds from trees and shrubs; fruits and berries. In winter looks for salt and drinks water from melting snow.

• **BREEDING** Monogamous. Semicolonial.

• **NESTING** Incubation 11–14 days by female; male feeds incubating female on nest. Young altricial; brooded by female; stay in nest 13–14 days, fed by both sexes. 1–2 broods per year.

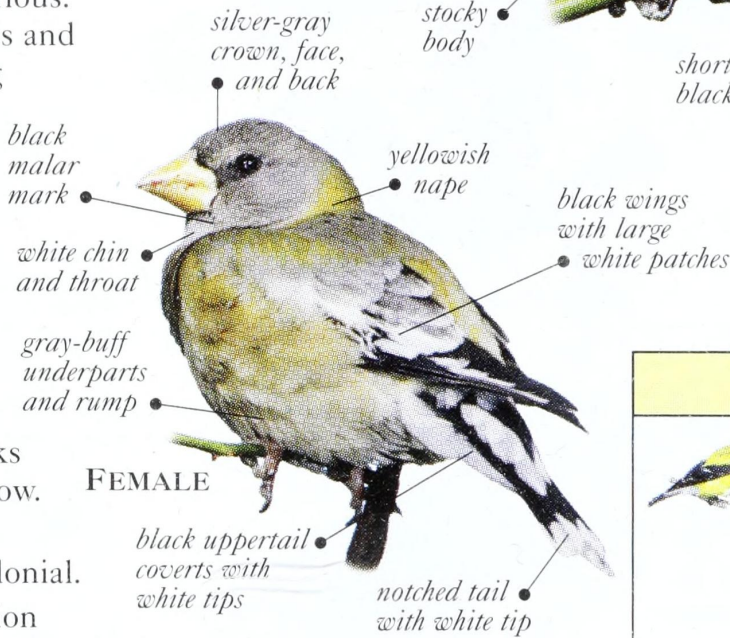
• **POPULATION** Fairly common in breeding season in conifers and mixed woodlots; in mountains in West. Irregular in winter in woodlots, parks, second growth, suburban areas.

• **FEEDERS** Sunflower seeds; frequents birdbaths.

• **CONSERVATION** Rare cowbird host. Many killed on salt-treated highways in winter.



MALE



FEMALE

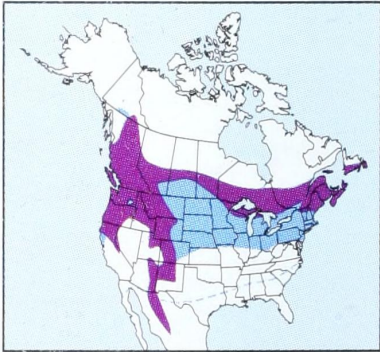


JUVENILE

Similar Birds



AMERICAN GOLDFINCH ♂
Smaller; black cap; pink conical bill; bright yellow upperparts and underparts; white undertail coverts; black wings; 2 white wing bars; white edging to tertials; notched black tail with white tips on inner webs.



Flight Pattern



Swift shallow bounding flight with rapid wing beats alternating with brief periods of wings pulled to sides.

Nest Identification

Shape  Location 

Frail structure of twigs, grass, moss, roots, and pine needles • lined with fine materials • built on horizontal branch of tree far out from trunk • usually 20–60 feet above ground (but up to 100 feet) • built by female • 3–5 pale blue to bluish green eggs, with brown, gray, and purple spotting; oval to short oval, 1.0 x 0.8 inches.

Plumage	Sexes differ	Habitat	  	Migration	Some migrate	Weight	2.1 ounces
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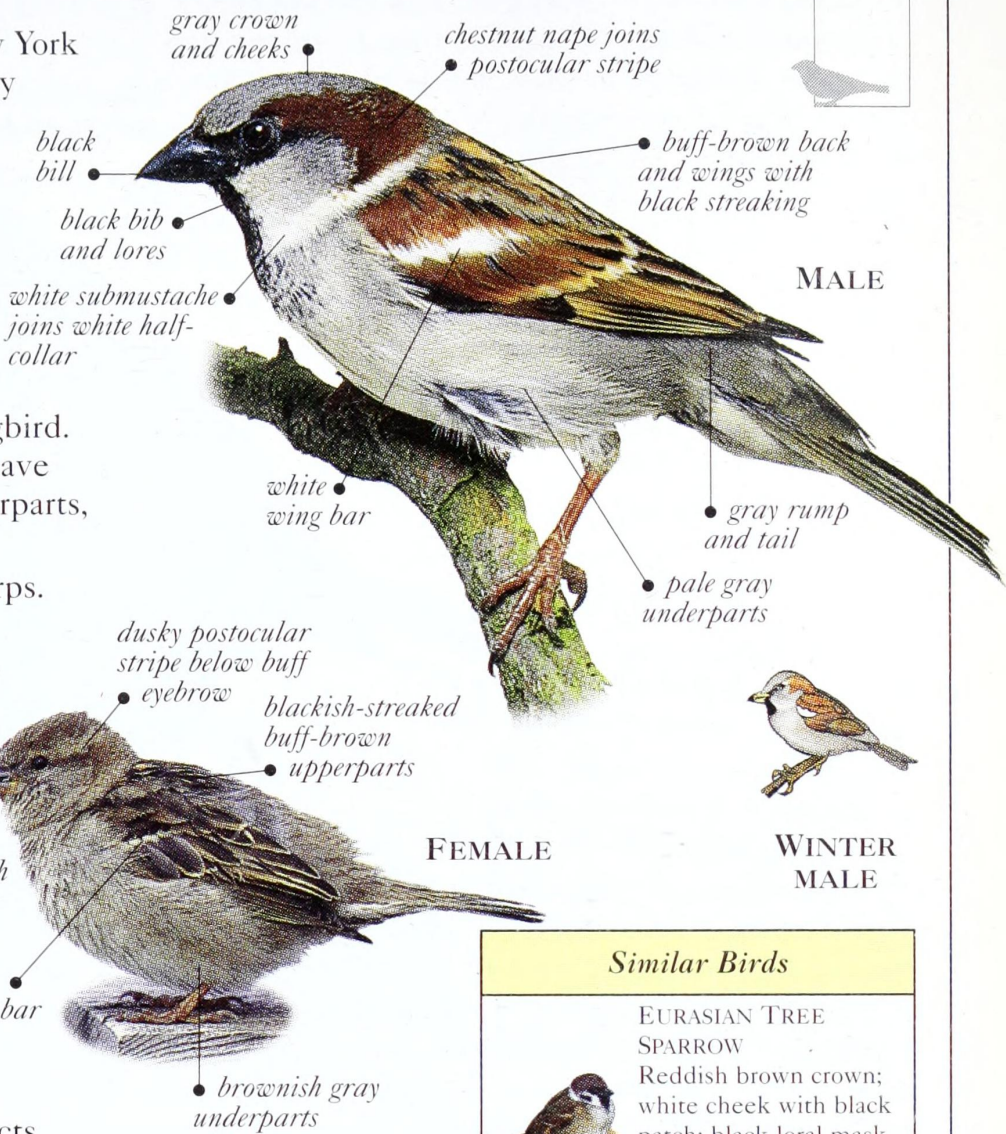
DATE _____ TIME _____ LOCATION _____

Family PASSERIDAE	Species <i>Passer domesticus</i>	Length 5.5–6.5 inches	Wingspan 9.5–10 inches
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HOUSE SPARROW

This bird was introduced in New York City from Europe in the 1850s. By the early 20th century it was established over most of the continent. With the popularity of cars it began to decline; fewer horses meant less undigested grain to be gleaned from horse manure. Sometimes called the English Sparrow, it is the world's most widespread songbird. Juveniles resemble females but have browner upperparts, buffier underparts, and a pinkish bill.

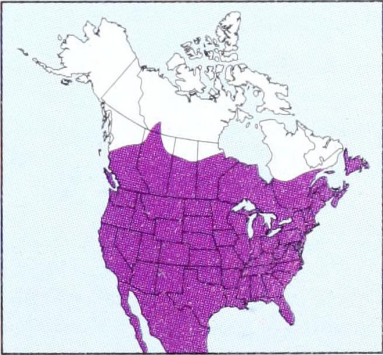
- **SONG** Twittering series of chirps. Call is monotonous repeated *cheep-cheep-cheep*.
- **BEHAVIOR** Aggressive and noisy. In pairs during nesting season; family groups and flocks after breeding. Feeds and roosts in huge flocks. Hops. Forages on ground, in trees and shrubs, in urban and rural areas. Eats insects, caterpillars, seeds, grains, and fruits. Inspects car grilles for insects. Usurps nesting cavities from other species.
- **BREEDING** Monogamous. Some promiscuous. Males form circle around female and aggressively battle with each other.
- **NESTING** Incubation 10–14 days by both sexes, mostly by female. Altricial young brooded by female; stay in nest 14–17 days; both sexes feed by regurgitation. 2–3 broods per year.
- **POPULATION** Abundant and widespread in urban and cultivated areas and around human habitation; gradually declining.



Similar Birds



EURASIAN TREE SPARROW
Reddish brown crown; white cheek with black patch; black loreal mask and chin; black-streaked brownish upperparts; white wing bar has black upper border; dusky brown underparts • locally common only in and around St. Louis, Missouri, and Illinois.



Flight Pattern



Swift somewhat bounding flight with rapid wing beats alternating with brief periods of wings pulled to sides.

Nest Identification

Shape 

Location 

- **FEEDERS AND BIRDHOUSES** Will come to feeders for small seeds and grains; nests in bird boxes.
- **CONSERVATION** Rare cowbird host. Out-competes other secondary-cavity nesters but loses to European Starlings.

Grass, straw, weeds, cotton, bits of debris, twigs, and feathers • in tree hollow, under eaves of building or other sheltered areas, or in bird boxes; abandoned nests of other birds • on the backs of highway signs and billboards in the West • built by both sexes • 3–7 light green or blue eggs, dotted with grays and browns, concentrated toward larger end; oval to long oval, 0.9 x 0.7 inches.

Plumage Sexes differ	Habitat 	Migration Nonmigratory	Weight 1.0 ounce
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DATE _____ TIME _____ LOCATION _____

Family PASSERIDAE	Species <i>Passer montanus</i>	Length 5.5–6 inches	Wingspan 9–9.5 inches
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EURASIAN TREE SPARROW

This small bird was introduced from Germany into St. Louis, Missouri, in 1870, and from there it has spread only into east-central Missouri and western Illinois. Today it is common but local and stable in its limited range. Distinguished from the House Sparrow by its brownish red crown, this bird usually makes its home near farmland and suburban gardens. Less aggressive than the House Sparrow, this bird chooses not to compete for roosting or nesting territory, which may limit its distribution. Juveniles are paler than adults and have grayish black chins and auriculars and black streaking on the forehead and forecrown.

- **SONG** Series of chirps and cheeps, with double *chissick*, similar to House Sparrow but harsher and higher pitched. Flight note is quick *chip*, *chip* and *teck*, *teck*.
- **BEHAVIOR** Gregarious. In pairs for nesting but forms family groups and flocks after breeding. Shy but it often allows closer approach than House Sparrow. Not aggressive toward other birds or competitive over occupied nesting sites. Forages on ground and in trees. Eats seeds, grains, and insects. May join House Sparrows in mixed-species foraging flocks.
- **BREEDING** Monogamous. Small loose colonies.
- **NESTING** Incubation 13–14 days by both sexes. Young altricial; brooded by female; stay in nest 12–14 days, fed by both sexes. 2–3 broods per year.
- **POPULATION** Common in its range where House Sparrows are scarce, in farmlands, parks, suburbs, and areas of human habitation. Accidental elsewhere in North America.
- **FEEDERS AND BIRDHOUSES** Will nest in bird boxes and come for small seeds and grains.



Flight Pattern

Swift somewhat bounding flight with rapid wing beats alternating with brief periods of wings pulled to sides.

Nest Identification

Shape

Location

- **CONSERVATION** No known brood parasitism by cowbirds. Out-competed for nesting cavities by other species in its range.

Straw, grasses, feathers, weeds, and bits of debris • in cavity in tree hollow, under eaves of building, in bird box, in crevice of cliff, etc. • built by both sexes • 4–6 light gray to white eggs, with brownish spots; subelliptical, 0.8 x 0.55 inches.

Similar Birds

HOUSE SPARROW ♂
Gray crown; gray cheek patch; black bib extends onto chest.



Plumage Sexes similar	Habitat	Migration Nonmigratory	Weight 0.8 ounce
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ACCIDENTAL SPECIES

These rare birds, which have been recorded in the area covered by this field guide, have not been profiled on full pages in this book. Included here is a list of these accidental species and those occurrences that have been reliably documented by the American Ornithologists Union (AOU) *Check-list of North American Birds*, 7th edition, with multiple locations separated by semicolons.

Kermadec Petrel,
Pterodroma neglecta: PA

Mottled Petrel,
Pterodroma inexpectata: NY

White-chinned Petrel,
Procellaria aequinoctialis:
Galveston Co., TX; NC

Mongolian Plover,
Charadrius mongolus:
NJ; LA; RI

Wandering Tattler,
Heteroscelus incanus:
ON; MB; TX; MA

Terek Sandpiper,
Xenus cinereus:
northeast MB; MA

Temminck's Stint,
Calidris temminckii: TN

Broad-billed Sandpiper,
Limicola falcinellus:
NS; New York, NY

Tufted Puffin,
Fratercula cirrhata: ME

Common Cuckoo,
Cuculus canorus:
Martha's Vineyard, MA

Red-naped Sapsucker,
Sphyrapicus nuchalis:
KS; OK; LA

Pygmy Nuthatch,
Sitta pygmaea:
IA; KS; TX

Siberian Rubythroat,
Luscinia calliope: ON

Brewer's Sparrow,
Spizella breweri:
MB; NS; IL; MA

Scott's Oriole,
Icterus parisorum:
ON; LA; MN; WI

Black Rosy-Finch,
Leucosticte atrata: OH

Cassin's Finch,
Carpodacus cassinii: MN

GLOSSARY

• **AERIE**

A nest located on a cliff or high place, usually built by a raptor, a bird of prey.

• **AGAVE**

A desert plant with a spikelike flower, similar to a Yucca plant.

• **AIR SAC**

A series of thin-walled sacs, typically eight or nine (but ranging from six to fourteen, depending on the species) that in conjunction with the paired lungs comprise the bird's respiratory system.

• **ALAR BAR**

A contrasting line (bar) of plumage beginning in the alar region of the wing (where the wing bends at the wrist and on the leading edge) and running from that point at an angle toward the bird's body, stopping where the back of the wing joins the body. The effect is a patch or line of feathers that differ from the color of the wing feathers around it, thus producing a visible bar on the top of the wing. Sometimes the bar runs from the alula to the base of the wing on the front side (leading edge).

• **ALTERNATE PLUMAGE**

See Breeding Plumage.

• **ALTITUDINAL MOVEMENTS**

(Vertical migrations) A bird's regular seasonal vertical movement, often from the mountaintops in summer to lower regions or valleys during winter, with a return to higher elevations the following spring.

• **ALTRICIAL**

Term for young birds that hatch in a helpless state, usually naked with eyes closed, and are totally dependent on the parents.

• **ALULA**

A small group of feathers that protrude from the outermost joint of the wing. It has its own group of muscles and moves independently from the flight feathers. By adjusting the angle of the alula, the bird is able to regulate the air flow over the top of the wing, allowing it to alight or land at slower speeds without stalling.

• **ANHEDRAL**

The downward curve of a bird's wings when in flight.

• **ARBOREAL**

A tree-dwelling bird.

• **AURICULARS**

Feathers along the sides of the ears, often called ear coverts or ear patches.

• **AXILLARIES**

Rigid feathers along the underside of the wings where they connect to the body, corresponding to the underarm area in a human.

• **BASIC PLUMAGE**

See Winter Plumage.

• **BREEDING PLUMAGE**

(Alternate plumage) Seasonal alterations in appearance to attract birds of the opposite sex, such as changes in color or the addition of ornamental ruffs. This is accomplished by a feather molt from the basic, or winter, plumage.

• **CAMBIUM**

Plant tissue near the inner bark of a tree that produces lateral growth.

• **CATKIN**

A spike of flowers such as those found on a willow or birch tree.

- **CERE**

The fleshy area on top of the base of the upper bill that contains the nostrils. Present on the bills of some bird species, particularly among birds of prey.

- **CLUTCH**

The total number of eggs laid during a single nesting period; some birds lay several clutches in a nesting season.

- **COLONIAL**

The pattern of nesting close together with birds of the same species. Sometimes only a few nests packed close together constitute a colony, but some may hold hundreds or thousands of nesting pairs.

- **CONSPECIFIC**

Birds that are members of the same species.

- **CONGENERS**

Distinct bird species that are related to one another by being in the same genus.

- **COVERTS**

A covering of feathers overlaying the upper and lower part of the wings, covering the bases of the flight feathers (wing coverts); also on top of the tail feathers (uppertail coverts and undertail coverts).

- **CRECHE**

An aggregation of hatchlings of a nesting colony, living together while they are in a dependent state and fed and tended by the adult birds.

- **CREPUSCULAR**

Birds that feed and are active during twilight hours.

- **CRISSUM**

Feathers covering the base of the undertail, usually a different color from the rest of the underparts. Also called undertail coverts.

- **CROP**

Where food is stored in the esophagus for later digestion, or to be regurgitated and fed to hatchlings. Some birds, such as pigeons and doves, have a two-chambered crop that produces special milk to nourish their young.

- **CROWN**

Top of the head between the forehead and the back of the head or occiput.

- **CULMEN**

Top ridge of the upper mandible, darker on some birds than the side of the bill.

- **DABBLING**

Method of surface feeding by a relatively short-necked short-legged duck. It tips up the tail and body, then dips its bill and neck into water. These ducks are called dabblers. See Tipping-up.

- **DECURVED**

Sloped downward, usually referring to the bill.

- **DETRITUS**

Small particles of dead organic matter.

- **DIHEDRAL**

Wings held in a shallow V while bird is in flight.

- **DISTAL BAND**

A strip of color near the end of the tail, end of wing, or on the lower part of the leg.

- **DIURNAL**

Birds that feed and are active during the day.

- **ECLIPSE PLUMAGE**

Dull-colored plumage, similar to that of the female, into which many male ducks briefly molt in summer.

- **EXTIRPATED**

Exterminated or destroyed from a part of a species range.

• **EYE RING**

A circle around the eye, usually of a contrasting color.

• **EYE STRIPE OR EYEBROW**

See Supercilium.

• **FIELD MARKS**

Plumage or anatomical features of a bird that help to distinguish it from other similar species.

• **FLASHMARK**

Color or marking on plumage that is visible only when the bird is in flight.

• **FLEDGE**

The act of a young bird (nestling) leaving the nest. Also fledging.

• **FLEDGLING**

A young bird that has feathers and is old enough to have left the nest but is still dependent on adult birds for care and feeding.

• **GONYS**

A ridge on the lower mandible of a gull that causes the midline to appear angled. Sometimes shows a red patch during breeding season.

• **GORGET**

A small iridescent patch on the throat of a hummingbird.

• **GULAR SAC**

A large or small pouch in the upper throat that helps a bird regulate body temperature and sometimes holds undigested food. In a few species, such as the Magnificent Frigatebird, the pouch greatly expands for courtship display.

• **HAWKING**

The act of catching prey, usually insects, in flight. Generally done with the bill. Typical of flycatchers.

• **HERONRY**

(Rookery) The colonial nesting site for herons, egrets, and ibises.

• **HINDNECK**

The bird's nape or back of the neck.

• **HUMERAL**

The patch of feathers overlying the bone near the upperwing or shoulder area.

• **JIZZ**

The abstract combination of a bird's posture, plumage pattern, shape, size, and behavior that allows an experienced birder to recognize a species instantly without further examination.

• **LAMELLAE**

Miniature ridges inside the bill of a duck or water bird that resemble the teeth of a comb and serve as a strainer during feeding.

• **LARDER**

A place where a shrike impales and stores its prey on sharp branches or wire.

• **LEK**

A communal gathering place during breeding season where males of some species of birds display to attract the females. It contains numerous territories, each guarded by a different male.

• **LORES**

Space between the eyes and the base of the upper part of the bill on the side of the bird's face.

• **MALAR**

Refers to the cheek area along the side of the face. Field mark here is called malar mark or malar stripe.

• **MANDIBLE**

The lower half of the bill. Maxilla is the upper half; both halves collectively are called mandibles.

- **MANTLE**

The feathers covering the back and upperwing coverts; feathers of the back and folded wings.

- **MANUS**

The portion of a bird's wing that corresponds to the hand of a human. The fused bones of the palm and reduced digits bear the primary feathers and the alula.

- **MELANISTIC**

A bird that has a surplus of dark pigment in its plumage.

- **MIMIC THRUSH**

A member of the family Mimidae, which includes thrashers, catbirds, and mockingbirds.

- **MORPH**

When birds of the same species have two or more different colored plumages, that are independent of season, sex, age, or breeding. Color phases may or may not be related to range and climate.

- **NEOTROPICAL**

The New World tropical region that encompasses the northern portion of the Mexican rain forest and the Caribbean islands, and extends to the nontropical regions of South America.

- **NEW WORLD**

Earth's Western Hemisphere; includes North, South, and Central America.

- **NOCTURNAL**

Birds that feed and are active at night.

- **NON-PASSERINE**

Any of the birds that are not Passerines, which are the songbirds or perching birds. Includes loons, waterfowl, owls, shorebirds, hawks, woodpeckers, and doves.

- **NUCHAL PATCH**

A patch of contrasting color located on the back of the bird's neck or nape.

- **OCCIPITAL PATCH**

A patch of color located high on the back of the head. Higher on the head than the nuchal patch.

- **OCCIPUT**

The area on the back of a bird's head between the nape and the crown.

- **OCOTILLO**

A spiny desert shrub with red flower clusters at the tips of its branches.

- **OLD WORLD**

Earth's Eastern Hemisphere; Europe, Asia, and Africa.

- **ORBITAL RING**

See Eye Ring.

- **PALEARCTIC**

Faunal region surrounded by the Atlantic, Arctic, and Pacific Oceans; encompasses Asia north of the Himalayas, Europe, and Africa north of the Sahara desert.

- **PASSERINES**

Any of the birds belonging to the order Passeriforms, which comprise more than fifty percent of the world's birds. Highly evolved, these birds are able to sing and have three forward-pointing toes adapted for perching.

- **PEEP**

Birder's name for a group of small, similar-looking sandpipers; may have been derived from their high-pitched calls.

- **PELAGIC**

Birds that spend most of their time at sea and rarely are seen from shore.

- **PIEBALD**

Plumage that shows two contrasting colors.

- **PISHING**

Sound produced by birders to attract birds; made by clinching the teeth together and

forcing air out through the teeth and lips to create a noise that sounds like *pish-pish-pish*.

• **POLYANDROUS**

When female bird has two or more mates; female often larger, has brighter plumage, and defends her territory. Male of the species usually incubates and tends young.

• **POLYGYNOUS**

When a male bird takes two or more mates.

• **POLYGAMOUS**

When both male and female of a species may take two or more mates.

• **POSTOCULAR STRIPE**

A line that leads from behind the bird's eye to the auricular or ear patch.

• **PRECOCIAL**

Term for young birds that hatch with their eyes open, are down-covered, and are able to leave the nest within two days of hatching. These hatchlings may be either partially or not at all depend-ent on the parents for care and feeding.

• **PRIMARIES**

One of two sets of flight feathers, or remiges,

located distally to the secondaries and joined to the manus of the wing.

• **PROMISCUOUS**

Birds, male or female, that come together solely for mating purposes and leave within a few hours to mate with other birds.

• **PYRIFORM**

Pear-shaped; often used to describe shape of egg.

• **RAPTORS**

A name applied to birds of prey – the hawks, falcons, eagles, kites, and owls.

• **RECTRICES**

The principal feathers that make up the tail. They range in number from eight to twenty-four, but the average in songbirds is twelve.

• **REMIGES**

Refers to flight feathers – primaries, secondaries, and tertials.

• **RIPARIAN**

Located on or near a river bank, stream bank, or other body of water.

• **SCAPULARS**

Feathers joined to the shoulder area of the bird and covering the top of the folded wing.

• **SECONDARIES**

One of two sets of flight

feathers located between the body and the primaries and joined to the part of the wing that corresponds to the forearm of a human.

• **SEMIALTRICIAL**

Term for young birds that hatch with eyes either open or closed, are down-covered, and are incapable of leaving the nest; fed by parents.

• **SEMICOLONIAL**

Nesting pattern in which several birds of the same species nest close to one another, often within sight of each other's nests and do not behave aggressively toward one another.

• **SEMIPRECOCIAL**

Term for young birds that hatch with eyes open, are down-covered, and able to leave the nest soon after hatching, but remain in nest and are fed by parents.

• **SKYLARKING**

Elaborate territorial display flight given by a male songbird. It sings and often flutters in circles before swooping back to earth.

• **SPATULATE**

A long rounded spoonlike shape; sometimes used to describe bill or tail.

• **SPECULUM**

A small area of contrasting iridescent feathers located on the secondary feathers of the wings. Often seen in ducks.

• **SQUEAKING**

Sound produced by birders to attract birds; made by pursing the lips tightly together and sucking air in to make a high-pitched sound. This can be amplified by placing the lips on the back of the hand and sucking in a kissing fashion.

• **SUPERCILIUM**

Line above each eye; an eyebrow. Also called a superciliary stripe.

• **SUPERSPECIES**

Closely related species that are often separated from each other by geographic barriers. Without these barriers the two species probably would interbreed and become one.

• **SYMPATRIC**

Birds that inhabit the same range but remain distinct and separate species.

• **TAIGA**

Subarctic coniferous forests.

• **TARSUS**

The top of the foot behind the toes, often called the shank. Usually either bare or covered with scales, plates, or sometimes feathers.

• **TERTIALS**

The group of secondary feathers closest to the body; often a contrasting color.

• **TIPPING-UP**

Method of surface feeding by a duck, goose, or swan in which it raises its tail and dips its bill, head, and neck into the water. See Dabbling.

• **TOTIPALMATE**

All four toes joined together by webbing.

• **TYMPANI**

(Tympaniform membranes) Valves in the vocal organ of a bird that produce sound.

• **UNDERPARTS**

The plumage and coloring on the breast, belly, sides, flanks, and undertail coverts.

• **UPPERPARTS**

The plumage and coloring on the nape, back, shoulders, rump, and upper part of tail.

• **VANE**

Contoured flight feather that acts as a propeller. It consists of a central shaft surrounded by an inner and outer web.

• **VENT**

The opening of the cloaca, or anus; sometimes refers to a contrasting patch of feathers in this area.

• **WATTLE**

Fleshy piece of brightly colored skin that hangs from the lower bill; associated with turkeys and some chickens.

• **WILDTYPE**

A biological term based in genetics that describes the form that most individuals in a wild population take; description includes shape, color, patterns, and size.

• **WINGSTRIP**

A distinct line on the wing, usually of a contrasting color.

• **WINTER PLUMAGE**

(Basic plumage) Seasonal alteration in a bird's appearance produced by the fall molt.

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References to full-page species profiles are shown in boldface type. A **W** denotes a species that does not range east of the 100th meridian, which is the line of demarcation used in creating this book. Full-page profiles on these species can be found in the DK Smithsonian Handbooks: *Birds of North America, Western Region*.

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Abbreviations: *b* = bottom, *t* = top, *c* = center, *l* = left, *r* = right.

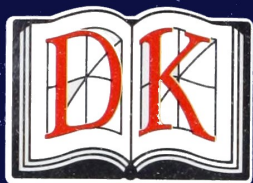
Plumage illustrations: Simone End, Carl Salter. **Profile illustrations:** Svetlana Belotserkovskaya 34, 35*b*, 36*t*, 36*c*, 36*b*, 37*b*, 225, 326, 328, 342, 344, 381, 405*b*, 456, 496, 502*t*, 502*b*, 503*b*, 504*t*, 504*b*, 558*b*, 560, 636*t*, 637*t*, 637*b*, 695*b*, 697*b*. **Lanny Chappellear** 251. **Ernie Eldredge** 12*t*, 13*c*, 54, 56, 61, 63, 65, 184, 213, 392. **Alice Pederson** 14*t*, 14*b*, 15*t*, 17*bl*, 53, 55, 81*t*, 212, 338, 394, 396, 398*b*, 467*b*, 508, 538*t*, 538*b*, 575*t*, 575*b*, 677*t*, 677*b*, 682*b*, 691.

Jacket photographs: Front: **Ron Austing** hummingbird, jay, chickadee, meadowlark, kestrel, turnstone, cardinal, goldfinch, wren. **Brian E. Small** bunting. **DK Picture Library/Maslowski** bluebird. **Inside photographs:** **Fred J. Alsop III** 22*bl*, 23*t*, 23*b*, 27*tr*, 80*t*, 100, 284*t*, 348, 551*b*, 721. **Ron Austing** 2, 23*c*, 26*tl*, 26*tr*, 26*b*, 27*cl*, 28*t*, 30*c*, 31*t*, 31*c*, 46, 68, 69, 70, 79*b*, 82, 83*t*, 83*b*, 84, 85, 88, 90, 91*t*, 91*b*, 92, 93, 95, 96, 97, 102, 103, 110, 112, 118, 120*t*, 120*b*, 122*t*, 122*b*, 123*t*, 120*l*, 120*r*, 127*t*, 128*t*, 130, 131*t*, 134*t*, 134*b*, 135*t*, 135*b*, 136*t*, 137*t*, 137*b*, 139*t*, 141*t*, 141*b*, 142*t*, 148*t*, 148*b*, 149*t*, 149*b*, 150*t*, 150*b*, 151*t*, 151*b*, 152*t*, 152*b*, 153*t*, 153*b*, 154*b*, 156*t*, 156*b*, 157, 159, 165*t*, 165*b*, 166, 168, 174, 180, 182, 187*t*, 187*b*, 188*t*, 188*b*, 192, 195*t*, 195*b*, 197*t*, 202*t*, 202*b*, 204*b*, 209, 210, 211, 217, 218, 219, 226, 228*t*, 228*b*, 229, 231, 233, 236, 238, 246, 247, 248, 249, 250, 253, 258, 266, 267, 268, 274, 276, 281, 290, 299, 301, 310, 317, 318, 320, 323, 332, 340, 341, 351, 362, 363, 368, 370, 371, 372*t*, 373, 374, 375, 376, 378, 379, 380, 383, 384, 386, 390, 391, 393, 399*t*, 399*b*, 406*t*, 406*b*, 407*t*, 408*b*, 411*t*, 411*b*, 415*t*, 415*b*, 418, 420*t*, 420*b*, 422, 424, 425, 429, 430*t*, 430*b*, 434, 436, 438, 440, 441, 451, 468, 469, 470, 472, 478, 479, 481, 487, 490, 495, 497, 500, 506, 509, 511, 513, 515, 517, 518, 519, 520*t*, 520*b*, 521, 524, 527, 529, 531, 532, 536*t*, 536*b*, 537*t*, 541*b*, 545, 548, 550, 556*t*, 556*b*, 559, 561, 564, 566, 567, 572, 574, 577, 578, 580, 581, 585, 587*t*, 587*b*, 588*t*, 588*b*, 589*t*, 590*t*, 591*t*, 591*b*, 592*t*, 592*b*, 595*t*, 598*t*, 599, 600, 601, 602, 603, 604*t*, 607, 609*t*, 609*b*, 610, 612, 614, 615, 617*t*, 617*b*, 619*t*, 619*b*, 621*t*, 621*b*, 623*t*, 623*b*,

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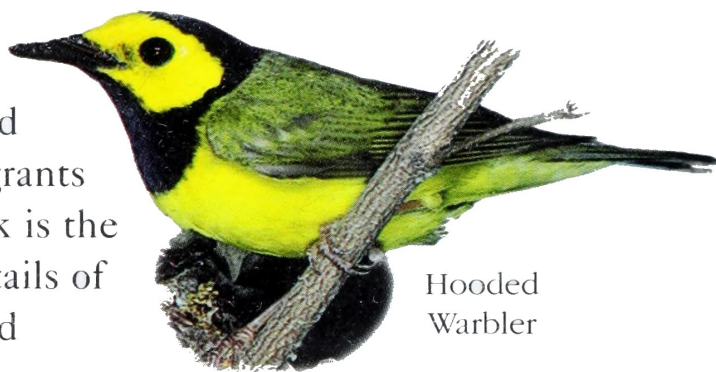
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Frederick Joseph Alsop, III PhD is an ornithologist and a professor of biological sciences at East Tennessee State University. He received his doctorate in zoology from the University of Tennessee, and specializes in the ecology, distribution, life history, and taxonomy of birds. An avid field biologist and birder, he has identified more than 3,200 species worldwide.



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